THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

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SUB-SOIL PLOWING.

Much as has been said in favor of deep plowing and sub-soiling the earth, the subject has hardly begun to excite that general attenion among farmers which it ought to command. There is scarcely one acre in a thousand on which a deep, mellow, and productive soil can be found, without breaking the *pan*, or compact mass that lies just below the surface of the ground. So far as the warm atmosphere can freely penetrate, with its oxygen, carbonic acid, ammonia, and vapors, chemical action will be extended, roots will grow and *rot*, and a fertile soil be gradually developed. The benefits of deep tillage do not all accrue immediately after the operation is executed. The formation of a deep, mellow, and rich soil, by the most skilful use of natural elements and agencies, is the work of many years. To attain this result, one needs not only mineral and organic matter in due proportions in the surface of the earth, but both minerals and mold of a particular kind, and in a particular condition of solubility and combination.

After a man has deliberately made up his mind that it is better to own and cultivate good land than poor land, and that there is such a thing as improving the natural fertility of the earth, his first thoughts should be directed to the point, whether any field, or part of a field, needs draining. Stagnant water within three feet of the surface will rise by capillary attraction to a degree fatal to that warmth and friability of the soil, without which its highest productiveness can never be reached. All under-draining should be into ditches at least three feet deep. But there are millions of acres of tilled land that need no artificial drainage, which will be greatly improved by deep, or sub-soil plowing. The advantages of this mode of culture are the more speedy and decisive, as the manuring, liming, and ashing of the land accompany the breaking up of the inert mass of clay or gravel below the surface soil. It is not pretended that this dead earth will instantly become fertile. Admitting that the comminuted clay really contains salts of lime, potash, soda, magnesia, and soluble silica, it takes *time* to prepare these fertilizers for the nutrition of cereal plants. Salts of iron and alumina, such as copperas and alum, are apt to exist in excess, and require a little caustic lime to decompose them and form gypsum, or sulphate of lime. Plants that contain considerable nitrogen, such as peas and clover, and of course yield a liberal per centage of the alkali called ammonia, when they decay, are exceedingly favorable to the deepening of a thin soil, in connection with deep plowing. Every farmer should understand the difference in the economical value of vegetable mold. Suppose one has 100 lbs. of cabbage, exclusive of water, in one heap, and a like weight of pine saw-dust in another. Which will form 50 lbs. of the better mold? The solid organized matter is alike in each mass; and why should there be any difference in the economical value of 100 lbs. of cabbage or 100 lbs. of saw-dust, either for feeding cows and children, or feeding wheat and corn plants?

In principle, there is no difference in feeding animals, from man down to a coral or sponge, and feeding plants. All living beings need food adapted to their peculiar natural wants. Hence, place a baby oyster in saline water that contains not a particle of lime, and its stony covering must cease to grow. Nature is incapable of creating the first atom of lime, or of any other element consumed to form any plant or animal. A deep, fertile soil, is one that abounds in the raw material for making bread, milk, and meat, in an available form, to the depth of twelve or twenty-four inches, as the case may be. Is there anything unreasonable in saying that such a soil possesses a very great intrinsic value? A cubic foot of such land in the valley of the Genesee contains, on an average, over a pound of common lime. This gives over 43,000 pounds of this mineral to an acre, within twelve inches of the surface of the ground. The writer is credibly informed by one of the best farmers in the State of Delaware, that a million bushels of burnt lime are now annually used for improving the soil in that small State. One farmer pays a $1000 a year for *guano*.

In the last number of the Working Farmer we find statements in regard to sub-soiling, from which we extract the following. JAMES CARNAHAN, President of Princeton College, states the results of an "unintentional" experiment he made in 1848, in sub-soiling.

"I wished," says he, "to sub-soil a lot in soil with a hard pan, and as I had only one team, I hired another to turn over the sod preceding the sub-soil plow. He came and worked one day, but did not return the next. As the time for planting was approaching, I directed my farmer to go on and plow in the common way as deep as he could. He did so. The following day the other plowman returned, worked a day (sub-soiling) and then was absent.

"The result was, the lot was plowed alternately

with the common plow and the sub-soil. The whole lot manured and worked in the same way, except the sub-soiling of some parts and some not. The month of August was dry; the corn in the sub-soiled suffered very little; that on the part not-subsoiled suffered very much.

"When the corn was gathered, we could distinguish the very row where the sub-soiling was commenced and ended — *the ears were more numerous and of a larger size.* I did not measure the corn nor the ground, but the difference was so obvious to the sight, that no one could doubt the superiority of the corn or the ground sub-soiled.

"This year the whole of my corn ground was sub-soiled, and the yield was very satisfactory. The month of July was dry and hot, and the leaves of my corn did not shrivel, while those in the adjacent fields rolled up."

Every farmer knows that a deep, friable soil will take up more rain water without detriment to the growing crop, than will a shallow, compact soil. For a similar reason, moisture from below will more readily ascend in dry weather and supply the roots of needy plants with their liquid aliment. But, do not forget that a soil sixteen inches deep requires twice as much mold as one only eight inches in depth. Now, the richest mold is that formed from the carcass of a dead horse or sheep; but as such organic matter is attainable only in homœpathic doses, the farmer should test his skill in producing mold from clover, peas, corn, grass, and other vegetables, to mix with his sub-soil. Beware of the folly of spreading farm labor over too large an area for the highest permanent profit. Fifty acres of good land are more valuable than two hundred of poor land.

WHEN TO PLOW, AND WHEN NOT TO PLOW.

In the course of a few sensible remarks on the relative profits of corn and wheat culture, in the February number of this journal, our friend Mr. SPERRY, of Gates, says: "Do not plow your ground in the fall, (the opinion of Dr. LEE to the contrary notwithstanding,) to leech and waste its sweetness on the dessert air; but if practicable, plow it up one day and plant it the next."

As "there is a time for all things," there must be a time to plow. When is it?

Mr. S. is too good a farmer not to know that the proper time to commence tillage with a view to prepare the soil for seeding or planting, depends very much on the character of the earth to be cultivated. A light sandy loam needs but one good plowing and harrowing to prepare the ground for wheat or corn; and if it be sufficiently dry, no matter how soon the seeding follows the plowing. But suppose one has a stiff, close, compact clay, which breaks up in lumps as large as a man's head. What is so good to mellow these as the hard freezing of a northern winter and their thawing in early spring? When plowing is done late in the fall, as it should be, very little decomposition of organic matter will take place till warm weather sets in at and after planting, so that talking of "gases losing their sweetness on the desert air," is a poetical fiction, rather than a matter of fact.

As a general thing, we do not approve of plowing land and keeping it exposed naked to the sun and rains long before the seed is placed in the earth. It gains something by the mellowing influence of atmospheric air and other chemical agents in nature; but when this *fallowing* is long continued in warm weather, the soil loses a large share of the fertilizing elements evolved in the progress of tillage, before the young plants which are to form the crop become large enough to take up and organize its too abundant food. Thousands of farmers waste, and lose forever, no inconsiderable portion of their manure and the soluble elements of plants in the surface soil, by not skillfully adjusting the feed of living, growing vegetables, to their respective wants. This loss can only be avoided by studying all the changes which plowing effects in the soil, and *how cultivated plants grow.* When this is done, the enlightened agriculturist will know how early and how late he may properly break green sward, or plow any field for any crop. He will then comprehend the importance of *deep* and *fine tilth* to augment the available atoms required by nature to form a generous harvest.—These atoms often abound in an unavailable condition, which must be changed before the soil can become fertile. Many stir the earth when it is too wet. Drying immediately, the surface acquires an impervious crust, which arrests the most important chemical processes carried on in tilled land. It often demands a nice discrimination to say whether a certain piece of ground should or should not be plowed at a particular time. A sound judgment is indispensable to the farmer, if he is to escape committing grave errors in his complex profession. Experience and science should go together.

WHEAT.—ITS MINERAL FOOD.

MR. WAY, Professor of Agricultural Chemistry in the Royal Agricultural College, Cirencester, England, has contributed to the Journal of the Royal Agricultural Society an extended and exceedingly valuable paper on the "Analysis of the Ashes of Plants." These researches embrace, among other matters of interest, the analyses of 62 varieties of wheat, so far as to determine the amount of minerals which an acre of grain, including straw and seed, removes at each harvest. In straw, the quantity of ash per 100 parts ranged from 3½ to 5 per cent. In one sample the ash was only 2.74 per cent; in another the per centage was as high 11. The mean of 40 specimens is 4½ per cent. Those varieties of grain which had the most mineral matter in the straw were less liable to fall, and the stems were brighter and more exempt from mildew and rust.

The ash in wheat chaff varies from 7 to 16 per cent. In wheat, the analysis of 62 specimens gave a mean of 1.67 per cent. This result is about the mean between the results obtained by Dr. SPENGEL, as copied by Prof. JOHNSTON in his Lectures on Agricultural Chemistry, and M. BOUSSINGAULT. In looking over the tables, we find no ash of the seed which contains quite half its weight of phosphoric acid, and none that has so little as 40 per cent. The next most abundant element is potash. Of this the proportion ranges from 33 up to 39 per cent. The third most abundant mineral is magnesia, which ranges from 9 to 14 per cent. After this stand soda and silica, the latter being mostly in the bran. Of lime, the figures run from 1½ up to over 8 per cent. Sulphuric acid and chlorine also exist in small quantities. In all cases the grain was cut close to the ground, and yet the wheat was nearly as heavy as

the straw. The best yields were obtained by dibbling one seed four inches in drill and in rows twelve inches apart.

Considerable improvements are now making in England in the art of feeding wheat plants fertilizers that abound in available *azote* — a substance the agricultural value of which was first taught by Dr. SAMUEL MITCHELL, of New York, about 60 years ago. It most abounds in cabbages or in cruciferous and leguminous plants. Azote is but another name for nitrogen, which forms about four-fifths of the air we breathe. This atmospheric nitrogen is not available in wheat culture till it is combined chemically with hydrogen to form ammonia, or hartshorn; or with oxygen to form nitric acid (*aquafortis.*) This acid combined with potash makes saltpetre, which is a most valuable fertilizer for wheat. Leached ashes and stable dung in a compost is a sort of nitre bed — a contrivance for converting atmospheric azote into nitric acid, just as burning wood converts the oxygen of the air into carbonic acid. The economical preparation of food for plants on scientific principles, is altogether too much neglected in this country. — Probably not one-tenth part of the liquid and solid excretions voided on the farms in the United States, is ever re-organized in the succeeding crops. After the manure is applied to the land, more than a moiety is lost before it enters the roots of plants. We can never have good crops of grain, grass, and potatoes, at a cheap rate, till we learn how to save all fertilizers, and work up the raw material of our several harvests to the best advantage. It is just as bad economy to apply too much as too little manure, to any given surface.

Two of the most expensive elements in grain culture are phosphoric acid and potash. These are derived from the soil alone, and are everywhere wasted, over more than 100,000,000 acres, in this empire of farmers. Other elements, equally necessary and nearly as expensive, are also thrown away in a thousand forms. It is high time there was a *poudrette* manufactory in every city and village in the Union; and that the fertilizing atoms so prepared be drilled in with seed wheat, here as in England, Belgium, and China. We evince a strange lack of common sense by continuing to impair the natural fertility of our arable lands, with the certainty that we must give more and more labor for every 100 bushels of potatoes, wheat, or corn that we annually grow. Keep all manure out of the rain. Be careful to save all ashes, and procure bones, gypsum, and lime.

OKRA.

MESSRS. EDITORS: — Several of my neighbors have received seeds from the Patent Office at Washington, and among them was one paper of Okra seed. How are they used? Some say that the pods are pickled. If so, at what time. A. WILLSON.—*Marcellus, N. Y.*, 1850.

OKRA is a native of the West Indies, where it is much used in soups and stews. Its use is rapidly increasing in this country. There are two varieties, the large and the small podded. The seeds are planted in the spring, either in rows or hills three feet apart. The plant thrives readily, and requires no further care than is requisite to keep it free from weeds.

THE COMPOSITION OF MILK.

MODERN chemistry has thrown much light upon this very important branch of rural economy. Of all agricultural products, none is more valuable, more widely diffused, or more difficult to dispense with, than *milk*, and the *butter* and *cheese* manufactured from it. Many elaborate and careful experiments have been made by BOUSSINGAULT in France, Prof. THOMPSON, and others in England, with the view to test the quantity and quality of milk produced by animals fed upon different kinds of food. These experiments have elicited many important facts of great value to the dairy farmer; but much remains yet to be done before this subject can be fully cleared up. The economical production of milk by means of the machinery which Nature has provided, must be carefully studied, and reduced to a science. This article, which constitutes so large a proportion of human food, will then be regarded as a *legitimate manufacture*, and improvements in the *machinery*, or the animals which elaborate it, will add millions to the agricultural wealth of the country.

The component parts of milk in all animals, both herbiverous and carnivorous, is the same. It differs only in the proportion of its principal ingredients. Substances are, however, occasionally found in milk, arising from the peculiar food of the animal, which render it medicinal, or even poisonous. The following table exhibits the composition of the milk of different animals, in its ordinary state, as found by Profs. HENRY and CHEVALLIER:—

	Woman.	Cow.	Ass.	Goat
Casein, (cheese,)	1.52	4.46	1.82	4.06
Butter,	3.55	3.13	0.11	3.32
Milk Sugar,	6.50	4.77	6.06	5.28
Saline matter,	0.45	0.60	0.34	0.58
Water,	87.98	87.02	91.65	86.80
	100.00	100.00	100.00	100.00

From the above it will be seen that asses' milk contains much less butter and cheesey matter than that of the cow. It is probably from this circumstance, and its similarity to that of the human species, which, from the most remote times, has recommended it to invalids as a light and easily digested drink.

The richness, or proportion of butter and cheese, contained in cows' milk is well known to depend upon the food of the animal, the period of gestation, and the time of her giving the milk. That taken last from the cow during the same milking usually contains much the larger proportion of butter. Its temperature is from 65° to 75°. To the naked eye it seems a pure, white liquid; but when viewed through the microscope, an infinite number of minute globules appear, which contain the oily part, or the butter. When the milk is set away in the dairy, these oily particles, being the lightest, gradually rise to the surface and form the cream. But when milk is exposed to the atmosphere, the sugar it contains slowly changes into an acid called *lactic acid*. This causes the casein or curd to coagulate, prevents the separation of the cream, and the milk becomes *sour*. As this acid is usually formed before all the buttery globules have risen to the surface, the curd always contains more or less butter; sometimes as much as two per cent., or one-half the whole quantity contained in the milk. Hence, the longer we can keep the milk sweet the more cream we can obtain. Now, it is impossible to prevent the change of the sugar into lactic acid; but we can in some measure coun-

teract its effects by adding to the milk a substance that will absorb the acid as it is formed. *Carbonate of soda*, or the common soda of the shops, is the substance which experience has proved best for this purpose. Less than a tea-spoonful of soda dissolved in water and well mixed with four quarts of milk, will often keep it sweet for four or five days; thus allowing all the buttery particles to rise, and doubling the quantity of cream. In very warm weather more than the above proportion of soda is required.—Another advantage from this process is, that it matters little what kind of vessels are used to contain the milk, whether of stone-ware, wood, or metal. In France large wooden tubs are often used, with a faucet at the bottom, through which the liquid can can be drawn off from beneath the cream. In this way the labor of the dairy is made much more simple and easy.

In order that the butter may have no bad taste, the soda must be pure, and especially free from *sulphate of sodium*, (glauber salts,) which it often contains. To test its purity, dissolve a little in water and then add sufficient vinagar to make it effervesce. Now put into this a piece of silver, as a tea-spoon, for instance, and if after remaining a short time it retains its bright appearance, you may depend upon the soda as pure; for it it contains the least particle of *sulphur*, the silver will become tarnished. After the soda has been dissolved in water, it should be strained through a piece of linen before mixing it with the milk.

From forty-eight to seventy-two hours are required completely to separate the cream. When this has been done, the liquid loses its white color, and acquires that *bluish* appearance well known to be the characteristic of *skimmed-milk*.

The souring of the cream is caused by the acid formed in that portion of the milk that adheres to the oily particles, and can be prevented, or rather retarded, by the process above described. The *carbonate of magnesia*, or twenty drops of *ammonia*, will be found to answer the same purpose as soda.
F.—*Washington, Feb'y*, 1850.

CHEMICAL PROPERTIES OF BUTTER.

Butter is nothing more than the substance formed by the union of the oily particles contained in milk. Each of these globules is surrounded by a very thin film of casein, or curd, which can be easily detected with a microscope. When the temperature of the cream or milk is raised, these, from their lightness, press towards the surface, break through the delicate covering which envelopes each globe, and run together into an oily mass: this is butter. The same result is attained by beating or violently agitating the cream, as in churning. This union is purely mechanical, and no chemical action takes place except in the formation of the acid by which the cream is soured, and which is absolutely necessary before the buttery particles will unite. Thus the cream must either be permitted to stand until it sours, or else it becomes sour during the process of churning. In the latter case it is often necessary to raise it to a higher temperature, and sometimes it is best to add a little sour milk, or some other acid substance while churning, and this will be found often to hasten the formation of butter. In many parts of Holland they are very careful to skim the milk while yet sweet, but allow the cream to become sour before it is churned. By churning the cream sweet, you obtain butter of a more delicate flavor but in less quantity. When soda or ammonia is used to keep the cream sweet, you obtain the largest possible quantity of butter, and it has all the delicate flavor peculiar to that made from sweet cream. In many countries all the milk is churned, under the impression that in this way more butter is obtained than from the cream alone. This cannot be the case where the cream has been properly separated from the milk; and besides, in churning the whole of the milk, it is impossible to separate all the butter, from the difficulty of acting equally upon and keeping in motion so large a body of fluid. In the vicinity of towns, where there is a ready sale for butter-milk, it may perhaps be good economy to churn the milk; but in the country, where there is no market for butter-milk, it is undoubtedly a better plan to churn only the cream, while from the skimmed milk a marketable cheese can always be manufactured. The proper temperature of cream in churning is about 55°; when the whole milk is churned it should be 8° or 10° higher. If it is raised too high, the butter comes quick, but is usually soft and white. This is often the case in warm weather, and the only remedy is to use ice, or to keep the milk in a very cool dairy. In churning, the motion should be regular and moderate; slower in warm weather than in cold, that the temperature may be uniform throughout the whole mass; and it has been found, from a series of experiments, that the hardest and finest quality of butter was obtained after churning at the above temperature from an hour and a quarter to an hour and a half. To ensure good hard butter at all seasons of the year, particular attention should be paid to the temperature of the cream; and on a good dairy farm ice should always be accessible, by which, even in the hottest summer weather, the cream can be brought down to the proper temperature.

It is well known that the food of the cow influences both the quantity and quality of the butter. When the cow is fed on hay or dry fodder, the butter always comes the hardest; and it is said that the orange carrot, when fed to milch cows, will impart an agreeable flavor and a rich yellow color to the butter. To add the juice of the carrot to the butter after it is made, as is sometimes done to give it a saleable color, is a very bad plan, as it makes it much more difficult to keep sweet. When butter is to be kept any length of time, it should be worked as free from butter-milk as possible. The imperfect manner in which this is done, is the principal cause of its becoming rancid so soon. On taking it from the churn, it should be placed in a linen cloth and pressed between two boards until most of the butter-milk is extracted; it should then be washed in cold water, changed as often as it becomes milky, and after being salted it should be set away in a cool place until the next day, when by again working it over, the remainder of the butter-milk can be easily separated. Now let it be put down in earthen or stone-ware jars, packed as closely as possible, and after sprinkling the top with salt, let a thin layer of powdered charcoal be put over all, the more effectually to exclude the air and to absorb those gases the tendency of which is to hasten decomposition. Butter put down in this way can be kept sweet a long time even in warm climates. In Holstein, where very choice butter is made, they pack it in firkins made of beech-wood charred on the inside. The salt used should be of the best quality and very

fine. Much butter is spoiled from using salt containing lime and other substances which hasten its decomposition. Salt can easily be purified by pouring upon it a little warm water and allowing it to drain: it dissolves and takes out the lime and other extraneous substances, and leaves the salt nearly pure. The quantity usually added to butter is one ounce to the pound. After butter has become rancid, it can be restored and made perfectly sweet by a very simple process. This is, to wash it well in cold water, often changed, and after pressing out the water, salt it anew and add a little sugar, say half an ounce to the pound. This will be found to render it much more palatable, although it may not entirely restore that delicate flavor peculiar to new and sweet butter, which once lost can never be restored.

The above hints on making and preserving butter, I have translated from a French Agricultural Journal, with such additions and alterations as make them applicable on this side the Atlantic. W. P. F.—*Washington, Jan'y,* 1850.

NOTES FOR THE MONTH.

A Milch Cow. — A correspondent in a late New York Journal of Commerce, under the signature of "Traveller," says that "on the farm of John Johnson of Fayette, near Seneca lake, a cow gave forty-two quarts of milk per day through the month of June, 1848; and for five days she gave forty-five quarts per day." It is a pity that a paper which so ably advocates our great agricultural and commercial interests, should thus condescend to lend a hand to hoax our farmers with such a *milk story* as this.

A gentleman of this place, Joseph Wright, who is justly distinguished for his great practical success in developing the resources of nature, in both her vegetable and animal kingdoms, went to the farm of Mr. Johnson one day in the same leafy month of June, 1848, where he saw the said cow, and learned from Mr. J. that she gave a pailful of milk three times a day. The pail now became an object of curiosity to our practical friend, which, when produced, proved to be a ten quart tin pail with a strainer of the ordinary kind! Mr. W. has since compassed the land east and west, to procure a cow that will give forty quarts of milk per day, without success. He now authorizes us to say that he will give $500 for any cow that will give forty quarts of milk per day for any three consecutive days in the year.

John Johnson of Fayette, stands in the front rank of Seneca's masterly farmers. As the "Traveller" says, he has "miles of under-drained fields," whose surface and sub-soil seems to have undergone an amelioration almost magical, — a successful experiment, which many of his astute neighbors are preparing to imitate. Such a man needs not the aid of fiction to gild his truly substantial respectability. If he told a "Traveller" a *fish story*, our word for it, it was only from that irresistable impulse to sportive *humor* a *trace* of which we trust may be found in the *organic elements* of his Scotch character.

Rural Literary Progress. — If we may judge from the tenor of the correspondence of Bateham's Ohio Cultivator, the rural population of that State are much more alive to the necessity of their own literary improvement, and to their progress in agricultural science, than are the same class in the Empire State. At the west, at least in Ohio, there seems to be a growing desire for progress, to which is added a sort of fear akin to jealousy, that rural New York has more State patronage, more schoolmasters in the field, and is going ahead of them in literature and science; while on the other hand the great mass of our farmers, good easy souls as they are, seem to lay the unction to their souls that being sovereigns of the Empire State, they have by birthright all the knowledge and all the honor necessary to their calling and position in life.

A farmer, writing to the Ohio Cultivator, speaks feelingly of the wretched common school system tolerated in that State. He adverts to the mode of hiring teachers as though the "price and not the qualifications" of the itinerant biped who claims the name and office of schoolmaster, was the great desideratum there.

A farmer's daughter, feeling a desire for more school learning than her district school can give her, appeals to the editor of the Cultivator for his opinion of the propriety of a farmer's daughter going to a select school, about which she has some misgivings, as two girls who had *finished* their education at a seminary, "came home, as every body said, 'too proud to work and too poor to live without it!'" So far from "finishing their education," it is most probable that the principal of that seminary would say that their studies had come to a sad ending. I once heard a master in Israel complain of the low state of talent generally in the priest's office. He said, if a man has a precocious son, he puts him into a law office or some other profession or trade where his genius may have scope; but if he has one son duller than the rest, the absence of genius or passion in him is *prima facie* evidence to the father that the son is pious, and he is fitted for the *ministry* as a matter of course. Had the parents of these two girls sent them apprentice to a milliner or a mantua-maker, they would have hit their vocation much better than in placing them at a select school. Who believes that a liberal school education unfits the mind to enjoy the plain domestic labors and comforts of the farm? So far from it, it opens to the mind the true avenues to the study and practice and just appreciation of the useful and ornamental, the beautiful and true, in intellectual, practical, and social life. It enables us to value the gloss and tinsel of the world at just what it is worth — to avoid mistaking the extrinsic for the intrinsic, pretence for merit, &c., &c.

Indian Corn. — Over fifty thousand bushels of Indian corn has been taken in by one firm in this village, within the last three months, at 50 cts. per bushel. Thirty years ago but little corn was grown in this county; wheat was then the great paying crop — the grand *arcanum* of the farmer In that day, corn was so much neglected that many fields of primitive fertility might be seen at harvest with more bulk of weeds than corn stalks — the cereal crop not averaging twenty bushels to the acre. But, as the French say, all that is changed now. Wheat is no longer a certain crop on the same soil, now exhausted of its phosphates, and of late a prey to the fly, the worm, and the rust. Indian corn being a grosser feeding cereal, requires only the strong nitrogenous manure of the barn-yard, the hog-pen, or old sward, with good, early, and frequent tillage, to insure a large crop almost any season in our climate. Hence, at this time corn is fast becoming the favorite crop of our farmers. An extended foreign market (thanks to free trade) has contributed greatly to the value of this crop; and this foreign demand must increase, as

the value of Indian corn as a palatable and economical article of food, is just beginning to be known in Great Britain. In fact, we are told that the only perfect article of Indian meal of the true sweet *nutty* flavor yet eaten there was imported into England on the cob.

For many years I have supposed that fresh barn-yard manure well worked into a rich calcareous clay soil to be planted with corn, would enable the crop to stand our summer drouth better than old and well rotted manure; but the experiment of the past season proves otherwise. Last spring I put no manure on my corn patch. The drouth in July and August was the most trying, I have known for many years; yet not a corn leaf rolled. I never saw more corn, or more perfect ears, grow on the same extent of surface. Had this patch been manured as usual, the temperature of the soil would have been increased during the fermentation of the manure in the hot weather of the long drouth, and the evaporation would have been great; as it was, the manure applied the previous spring now performed in the soil the office of well rotted manure. Stirring the soil often during the drouth, let in the oxygen of the atmosphere, which readily formed water with the hydrogen of the decayed humus. For several previous years, my corn being manured with fresh stable dung, its leaves rolled during the drouth, and many ears did not fill. But I would advise farmers to manure with unfermented manure this spring, as the probability is that after so many dry seasons the next will be cold and wet, when a necessary increased temperature in the soil can only be attained by draining or the application of fermenting manures! S. W.—*Waterloo, N. Y., Feb'y*, 1850.

ON SMUT IN WHEAT, AND THE CAUSE OF IT.

MESSRS. EDITORS:—This being a season of the year when practical farmers have the most leisure time during the day, with long winter evenings in which to read, reflect, and learn the ways of men and things, I propose to furnish for your useful and widely circulated paper a few communications, containing statements of *facts* in relation to agricultural matters, as they "came to pass" with me, together with such inferences and opinions as I have formed upon those facts; and inasmuch as I have recently observed in newspapers some publications in which the old, absurd, and (as I had believed) exploded hypothesis of the "*fungus*" origin of smut in wheat is revived and inculcated, I will begin with that subject.

During the winter of 1833, while spending some months in Albany, I wrote and published in the Albany Argus a series of articles, containing my observations and experiments continued through several successive years, in relation to the "cause of smut." Those articles were written in the plain, common language of the country, *(as all such communications should be,)* and addressed to "*practical farmers*," as being the persons most immediately interested in the subject matter of them. A series of experiments, continued through the past *sixteen* years, has in every respect corroborated the statements made in my former publications on this subject. I will, therefore, here request you to insert those articles as follows:

NUMBER I.

I have read many essays on the subject of the smut in wheat, and almost every writer has invented a new hypothesis as to the cause of it. In the *refinement* of their theories, (like philosophers in most other speculations,) they have, in my opinion, wholly "overstepped the modesty of nature," in their vague conjectures about "*invisible insects*," "*vitiating principles in the air*," "*diseases arising from unseasonable cold and wet*," and that *smut is of an animal nature*, &c., &c. None of these theories or conjectures were satisfactory to my mind; but as I had not sufficient information to enable me to controvert them, or even with any propriety to question them, until very recently, I have remained silent, hoping that some one more capable than myself, would undertake a series of observations and experiments, which might result in a discovery of the true cause. Not being aware that any one has done so, and believing that some facts in my possession relating to this evil may be of service to intelligent farmers, (by drawing their attention to it, if in no other respect,) I will proceed to state them. It is perhaps proper here to premise, that for several years previous to 1830 my wheat crop had been considerably affected by smut; but by letting it remain in the field, *uncut*, until it was thoroughly, or *dead* ripe, the smut grains became so perfectly dry, that when the crop was threshed, they were very nearly all broken. The dust was cleaned out by the fanning mill, leaving the wheat entirely free from the smut usually found sticking to the "*downy*" end of the grain. In the summer of 1830, finding that my wheat had an unusual quantity of smut in it, I determined, if possible, to discover the cause of it. I commenced my operations by pulling up the stools of the smut wheat and examining the roots. In all cases (and I examined a very great number) I found the roots mouldy and rotten, the outer covering or "bark" had evidently been eaten off by some worm or insect; but of what kind, I was unable to ascertain. After several days of fruitless examination, I accidentally discovered on one of the smut ears a very small ash colored *bug*, about an eighth of an inch in length, something less than a line in diameter, and about a line in height. It appeared to be busily employed in gnawing its way into the husk or chaff of one of the smut grains; in a few moments it perforated the chaff, and began to feed greedily on the smut grain within. My curiosity was excited by seeing that little insect feasting, with much apparent satisfaction, upon a substance that I had always supposed no animal in the world would eat. After some reflection, it occurred to me that many animals appear to have an innate knowledge or instinct, which pointed out to them the best mode of preparing their food; and observing that this bug seemed to be feeding on its natural aliment, I determined to make some experiments for the purpose of ascertaining what agency (if any) this species of bug had in the production of smut. On a careful examination, I found one or more bugs on almost all the smut ears. A day or two afterwards, I took a small clean glass bottle, into which, after much care and trouble, I succeeded in putting three or four smut ears with about a dozen bugs on them; a paper cover was then tied over the mouth of the bottle so closely that no insect could get in or out. The bugs continued to feed on the smut grains for about three weeks, when they all died. Thinking it probable that they had deposited their nits or eggs in the smut grains, I took the smut ears and dead bugs out of the bottle, cleansed it thoroughly, brushed the dirt off the ears, and again put them into the bottle, which was closed as before. Within about four weeks I had a considerable number of young bugs hatched out, which immediately began to feed on the remaining smut grains. I kept them several weeks, untill during autumn they all died also.

NUMBER II.

During the summer of 1831, I again found that my wheat was smutty, and repeated my experiments upon the same species of bug, (mentioned in my first number,) of which I found great numbers on the smut ears. As in the preceding year, I put as many of the smut ears, with the bugs on them, in my bottle as it would conveniently hold: as before, the bugs all died in the course of three or four weeks. I then carefully examined many of the smut grains, in nearly all of which I found a small maggot or worm. Some were about an eighth of an inch in length, and in diameter nearly as large as the parent bugs; others were smaller, and several so small as to be scarcely visible to the naked eye. In some of the grains I could not discover any maggots, I presume because they were too minute to be visible to the naked eye, and I had no lens with which to examine them. The remaining smut grains were left untouched in the ears, put into the bottle again, and in two weeks I again had another full crop of bugs hatched out. These last, with the smut ears in which they were bred, I now have in my possession. A few days after I had found the bugs in my bottle were

hatched out, I observed immense numbers of the "*smut bug*" (as I shall hereafter call them) almost literally covering the floor and timber of the barn where my wheat was housed. There must have been *millions* of them. No doubt they had been bred in the smut ears carried in with the wheat. Within three or four weeks they all disappeared. Those which I saw in the fields were extremely shy, and upon the slightest touch of the ear fell to the ground, where they laid perfectly still and inanimate, *feigning*, as it would seem, to be *dead*. Being so small, and in color approaching to that of the soil, *(a gravelly clay,)* it was very difficult to find them. After remaining quiet, however, for a few minutes, they ran up the stem of the smut wheat and resumed their feeding on the smut. They were quite active in *running*; but whether they ever did, or could *fly*, or not, I could not ascertain. Their *habits* appear to be similar to those of the *pea* bug; and on a close examination, I have found several smut heads, in which all the grains had evidently been perforated near the lower part in the same manner that pea pods are found to have been perforated by the pea bugs. The punctures were so minute as to be scarcely perceptible to the naked eye; but I do not doubt that with a good glass all the smut grains would have been found to have been perforated in the same manner.

Upon much reflection I have come to the conclusion, that smut wheat is the *natural* food of the bugs I have described. There may be, and very probably are, other vegetable substances upon which they sometimes subsist when their natural aliment is not to be obtained. But as *conjectures* without *facts* upon which to found them are oftentimes worse than useless, I shall refrain from suggesting any at present, although (if convenient) I may hazard some in a future number.

That the smut is *not produced by a disease in the plant*, is, I think, conclusively proved by the facts I have stated. But if *additional* proofs were wanting, I have them, sufficiently strong as I should imagine to convince the most sceptical, in some circumstances which took place on my farm during the past year. I had, the previous year, taken much pains to procure seed wheat, to sow in one of my fields, which was perfectly free from smut. The land had been in clover about three years. It was plowed three times, and was in excellent order. The wheat was sown in good season, and in the fall looked very well. It continued to grow finely until it eared out, when I discovered it to be more smutty than any other which I had on my farm, although there were *two* fields which had borne a smutty crop the previous year, that had been again sown. I was at a loss how to account for this, until I recollected that the *clean* field which I had sown with *clean* wheat, had been well *manured* a few weeks before the wheat was sown. The manure was taken from the barn yard where all the straw and chaff of the smutty crop of the previous year had been thrown when it was threshed out. The *smut grains* of the former crop were undoubtedly carried into the field with the manure. In these smut grains, I presume, the *maggots* of the smut bug existed in great numbers, and thence came the *insects*, which smutted the wheat to so great a degree as to amount, probably, to one-tenth part of the whole crop in the field. J. H. H.

(To be continued.)

SALT AS A MANURE.

Messrs. Editors:—In my Farmer for January I find that our friend Park has given his experience in the application of *salt* as a manure. I confess I can not see any substantial proof of its efficacy as a manure, from his experiments. His first is on a seven acre lot which had had no manure for four years, and then only a small quantity. Now, mark—

At the commencement of his experiment he puts on a small quantity of manure. In September, 1847, he plowed it up; in May, 1848, he plowed it again and sowed on it seven barrels of salt; about two weeks after he dragged it both ways, and in the fore part of July plowed it again and kept the drag at work; about the middle of August plowed it the fourth and last time, and on the first and second of September sowed it with wheat at the rate of two bushels per acre. Now then, from friend Park's care in fitting his land and putting in his seed, I think he could reasonably expect forty bushels per acre in a good year without an ounce of salt being put on his land. I believe his county is as good for wheat as Ontario; and I have seen in the town of East Bloomfield, Ontario county, thirty acres of common land, which had been cropped with wheat every other year for some time—not a particle of manure—plowed in May or fore part of June, cultivated in July, and again just before sowing, which was about the first of September. The next spring, or fore part of summer, it was injured by the worm to such a degree that the proprietor told me he would be willing to take thirty bushels for the whole crop; but afterwards it began to recruit. On harvesting and threshing, it averaged him thirty bushels per acre, thus showing to my mind that friend Park might possibly have had just as good a crop without the salt.

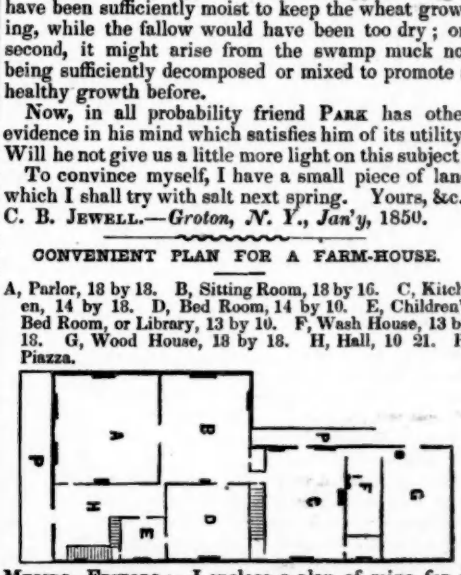
In his second experiment the evidence is more conclusive, but not indisputable to my mind; for his success might have arisen from other causes: First, had it been a very dry season, the swampy acre might have been sufficiently moist to keep the wheat growing, while the fallow would have been too dry; or, second, it might arise from the swamp muck not being sufficiently decomposed or mixed to promote a healthy growth before.

Now, in all probability friend Park has other evidence in his mind which satisfies him of its utility. Will he not give us a little more light on this subject?

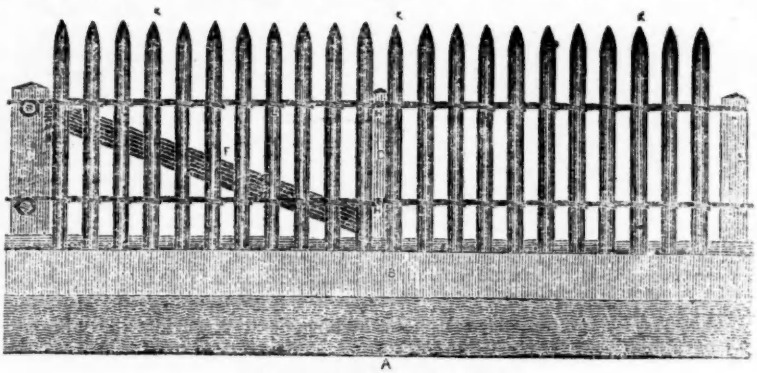
To convince myself, I have a small piece of land which I shall try with salt next spring. Yours, &c., C. B. Jewell.—*Groton, N. Y., Jan'y*, 1850.

CONVENIENT PLAN FOR A FARM-HOUSE.

A, Parlor, 18 by 18. B, Sitting Room, 18 by 16. C, Kitchen, 14 by 18. D, Bed Room, 14 by 10. E, Children's Bed Room, or Library, 13 by 10. F, Wash House, 13 by 18. G, Wood House, 18 by 18. H, Hall, 10 21. P, Piazza.



Messrs. Editors:—I enclose a plan of mine for a farm-house, which you are at liberty to make use of. It may not be new to you, but I do not recollect seeing anything exactly like it, nor have I seen any that suits my notion of a farm-house as well. I have not made any plan of the outside nor any estimate of the expense, as these would vary according to the location and means of the builder. The main building is 28 by 34 in the clear, and the wing, without the wood-house, 18 by 25. There is no room in the house but what may be entered without going through another, and but one room from which a person can not look out on the highway. The second story can be reached privately from the kitchen. The servants rooms are convenient to the kitchen, and that for the males can be entered from the wood-house. There is a stairway under the kitchen stairs, leading to the cellar, and an outside entrance can be had where it is desired, for the entrance of barrels or roots. The sketch is merely made from the eye in somewhat of a hurry, but will serve to give you an idea of what I mean. J. O. Schultz.—*Sloatsburg, N. Y.*



WIRE TELEGRAPH FENCE.

We have received from Mr. Leavenworth, engravings and a discription of his Wire Telegraph Fence. We copy the following full description from the New York Farmer and Mechanic :—

"This fence is the invention of Mr. Lucius Leavenworth, of Trumansburg, Tompkins Co., N. Y., for which Letters Pattent were issued last October. The wire can be formed so as to put the pickets up in sections of any required length. It is drawn sufficiently tight at each corner of the field to strengthen the fence and fasten the pickets so that a brace is necessary at the first and last posts. The remainder of the posts, if wood, can be set in sills ; if iron, in flat stone. The hooks H, H, pass through the posts to allow the wires to be drawn. The screw on the opposite side of the posts will draw the end of the hook to the post which secures the wire. The wires are first secured on the post C, by screws or bolts, so that all the parts are of simple construction. The wires are formed, by a machine invented by Mr. Leavenworth, so as to encircle and retain the picket in a most simple manner. The machine forms the wire to any sized picket, and for any required space. The picket is turned with cylinder or traversing lathes.

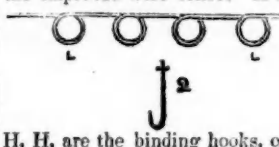
Fences made on this plan, attached to cast iron posts with wrought iron tennons and stone seats, would last for a number of years if well painted. The pickets can be made of the cheapest kind of timber ; and when it is painted will be durable. If preferred, a cheap kind of varnish could be used instead of paint. The pickets and wire might be painted or varnished before they are put up. On bottom lands, where a movable fence is required, it will supercede all others. It can be taken down, removed, and put up with very little trouble, weighing only about thirty-five pounds to the rod.

There are different plans for putting up this fence. The one in the engraving is probably the most substantial. The ground can be raised and a tier of stone laid instead of a board or the fence can be suspended from post to post without either.

This fence offers but little opposition to the wind, and consequently no snow wreaths are heaped around it. It is calculated to be a safe-guard against all animals commonly fenced against. The transportation of this fence will be trifling compared with other fences. It is well adapted for farmers on the western prairies, and in all countries where timber is scarce. With suitable machinery, where timber is plentiful, it is calculated that pickets can be manufactured for from thirty to thirty-five cents per rod ; the wire formed for putting it up will cost from twenty to twenty-five cents.

To make use of this fence for telegraph purposes, it will be necessary to suspend it from post to post, and insulate the wire at the posts. A farmer having his land inclosed with this plan of fence, with certain fixtures attached to it, can tell whether his fence is down or any part of it is broken without leaving his dwelling.

Figure 1 is a front, and fig. 2 a sectional view of the improved wire fence. A is the ground ; B the bottom or base board ; C, D, E, are the posts ; K, K, K, are the pickets ; L, fig. 2, is the wire ; H, H, are the binding hooks, one of which is represented in fig. 2. The bottom board is bevelled at the top, and the bottom of each picket has an angular notch cut in it to fit on the upper edge of the board, which gives firmness to the fence, while the board presents a bevelled edge to the weather.



Any communications, post-paid, in regard to this fence, or for the purchase of Rights of States, Counties, &c., may be addressed to the patentee at his residence, or to Mr. John Savage, No. 9 Coenties Slip ; also, the editors of the Farmer and Mechanic, who are authorized agents for the same."

Messrs. Editors :—While reading an article in a late number of the Farmer, from the pen of Prof. Dewey, of Rochester, N. Y., the following inquiry arose in my mind : Suppose, as is generally believed, that the earth is an oblate spheroid, i. e. flattened at the poles, and at rest in space, i. e. having no rotation or revolution on its axis, and consequently no centrifugal force, where would its attraction, i e. the force of gravity, be greatest—at the equator ? or at the poles ! An answer (amounting to a mathematical demonstration, if possible,) is desired, if such a subject is admissable into the columns of the Farmer. H.—*Down East, Jan'y*, 1850.

Franklin found time in the midst of all his labors to dive into the hidden recesses of philosophy, and to explore the untrodden path of science. Want of time, therefore, is but a poor excuse for ignorance of one's profession.

PRESERVING FENCE POSTS FROM ROT, &c.

Eds. Farmer: — Much has been said and much more will undoubtedly be said on the subject of making fence. Much information has been elicited and much more yet remains in store to be hereafter given to the public. It is a subject of much magnitude to the farmer; for a good fence is an important item, subject to no small outlay both in its original construction and its subsequent necessary repair. If your fence is not made of stone or iron, then it must be made of materials more perishable. And the question is, if the fence is made of wooden materials, what mode of construction and what timber is the best and most durable? Whoever has turned his attention to that subject for the last thirty years, must have perceived that all around him are common rail fences which have stood from thirty to forty years, having most of the rails in a state of perfect preservation. He will also see others, having stood less than fifteen years, in a state of total decay. And if he takes a still closer view, he will discover that the fences most durable are made of rails of chestnut, or black ash, as No. 1, for durability, black oak and cucumber as No. 2, and hemlock, hickory and basswood as No. 3.

With these facts before us, let us see what would be the best material for posts to use in constructing a board or even a wire fence; for no one will doubt the necessity, or at least the economy of using the cheapest and at the same time most durable timber. Red cedar posts, set in the earth for a board fence, will last — I can not tell how long; for I have only tried thirty-two years, and as yet they are all sound. They cost with us about $20 per 100, or 20 cts. each. Chestnut and black ash will probably last from ten to fifteen years; oak about ten years; and the almost uniform time for *hemlock* is six years. I have emphasized the word hemlock from the fact that, excepting cedar, it has been more universally used than any other timber, while it has hardly its equal in its tendency to rapid decomposition. Even the posts sustaining the telegraph wires from Buffalo to Cleveland are mainly hemlock; consequently they will not stand over about six years without renewal.

Every observer must have discovered that the post first gives way at the point where it enters the earth. To prevent the rot at that point has been the subject of much inquiry and many experiments. I will not attempt to go through with all the different methods taken to prevent the rot, such as charring, lime, ashes, corrosive sublimate, &c., but will ask the reader's attention to the one fact that, while the post decays at the place where it meets the surface of the ground, he will frequently find all above that in a state of entire preservation. The great question to be solved, then, is, How can we prevent the post from decaying at that point? I answer, that it can be done by one of the most simple and easy methods. But let us, in the first place, see what is the cause of the decay at that particular point. First, It is not moisture; for timber will remain at the bottom of a river or lake for centuries. Second, It is not the want of moisture; for timber will also last for centuries in a building, where it is kept dry. It is, then, a combination of moisture and air that does the mischief. The remedy I now propose will not cause the post to endure for ever, but it will cause every part to be durable alike — the part below the earth to be as lasting, or nearly so, as the part above the earth.

Dig the hole for the post a sufficient depth — say two feet. Make the hole much larger than the post, especially in the longitudinal direction of the fence; put the post in its place and fill the hole around the post with round cobble stones, weighing from five to twenty pounds each. Let none of the earth be returned to the place it came from; the stones support the post and at the same time admit the air to it, and it is thus preserved. I have sometimes dug the hole three or four feet long in the direction the fence runs, and about one foot wide, then placing one large flat stone on each side the post in the direction of the strain. If the stones have an uneven surface, so much the better for admitting the air. In using this method, I leave the remainder of the hole without filling up. S. S.—*Westfield, N. Y.*, 1850.

MANAGEMENT OF SWINE

Messrs. Editors: — I give you my experience in the management of swine. In the first place, I take December pigs, let them run with the sows two months, then wean them and enclose them in a pen, in which they are moderately fed on corn with as much milk from the dairy, or good swill of some kind, as will keep up a thriftiness. As soon as clover is in blossom, I leave off grain feeding and give clover three times per day until after harvest. I then turn them on to stubble. They remain there until about the first of September, whence I remove them to a pasture adjacent to my corn field, and keep up their condition by giving them a small quantity of green corn. When the time of fattening comes on, I have my hogs in very fine condition to take on fast. I enclose them in a pen and feed them altogether on corn and water, and by the time the weather is cold enough, which is the latter part of November, I slaughter them at the age of about eleven and a half months. With this treatment they weigh from 225 to 250 pounds dressed pork. In the mean time, my second litter comes on in June, which have the benefit of the stubble with the first litter, and running with the sows, and sucking, they get a very fine start. At about two months old I wean them and enclose them in a pen, taking the same process as with the first litter, only forcing their growth more rapidly by giving good slops and as much corn as prudent, without fattening too rapidly for their growth. I continue this process until the first of January. I then slaughter them at about the age of six and a half months. They will average 150 pounds of dressed pork very readily. This is no fiction, but matter of fact, from personal observation.

You will now perceive that from one sow, say having two litters in one year, eight pigs in each litter, the result will be as follows: First litter, eight pigs, weighing 225 to 250 pounds each, aggregate 1800 to 2000 pounds; second litter, eight pigs, average 150 pounds, aggregate 1200 pounds; which would make from 3000 to 3200 pounds of dressed pork from one breeder. This has been my treatment of hogs for the last few years, and I am satisfied it is the most profitable way I have ever tried. Brother farmers, this is an experiment on the Bedford hog, which has the qualities of enormous size and great tendency to fatten at any age. Yours, &c., Edmund J. Rosenberger.—*Smith's Creek Farm, (near New Market,) Rockingham Co., Va., Jan'y*, 1850.

Industry and perseverance merit success.

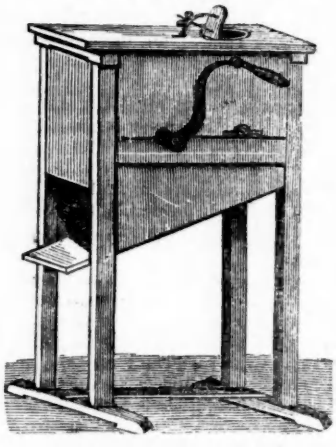
WOAD.

Messrs. Editors: — In Vol. 7, No. 3, of the Genesee Farmer, a subscriber wished information, through the columns of that paper, concerning Woad, &c. As no answer has appeared, and as I have some leisure time, I will proceed briefly to answer the inquiry, if better late than never. Where woad seed can be obtained, I can not positively say. In the catalogue of G. Thorburn & Sons, of New York city, and in the catalogue of Mr. Prince, of Flushing, Long Island, some years ago, among other seeds that of woad was advertised for sale. I know nothing about the price per pound. Several years ago I received a small quantity of woad seed from a friend, which I sowed early in the spring, on good sandy loam. The amount was small, but it grew finely. At the proper time the leaves were cut and manufactured in the usual way, and the article so manufactured was used by a neighboring dyer.— Woad seed should be sown early in the spring on good, dry, well prepared soil, in rows eighteen inches apart, to stand six inches, or more, apart in the row, and the ground to be frequently stirred with the hoe and kept free from weeds during the season. Its culture is extremely simple. In France, five crops are taken in one season from the same woad field; but our seasons in this country are too short for so many crops.

To manufacture woad for the use of dyers, the leaves are cut when they have attained maturity, and immediately taken to the mill to grind. The mill is like the old fashioned bark mill — a stone turns round in a circular trough; in this trough the leaves are placed, and by the action of the stone reduced to a paste. The whole is then put together in a mass and well beat down with a shovel to make it smooth. In this situation it is left to ferment for about two weeks. It is then well mixed by stirring, and then made into small balls and well dried without wet; it is then fit for use. The process above described is repeated with each successive crop of leaves, and the whole operation is performed under shelter, as no rain must be permitted to fall on the woad at any time after the leaves are cut. In France, indigo has been obtained from the leaves of woad by a process similar to that used in the manufacture of indigo from the Indigofera, or Indigo plant; and some thirty years ago, Gen. Dearborn, of Brinley place, near Boston, Mass., by a similar process, obtained indigo from woad, an account of which was published in a Massachusetts Agricultural Journal of that day. Before indigo was known to the dyers of Europe, woad was their only resort for fast blues, but is now seldom used except in conjunction with indigo, to facilitate the fermentation of the blue vat and assist the disoxygenation of the indigo. J. Ellingwood. — *Gainesville, Wyo. Co., N. Y.*, 1850.

Woad some years ago was considerably used in this country for dyeing, and generally as a base for blues, blacks, and some other colors. The produce is from about a ton to a ton and a half of green leaves. The price varies; but for woad of prime quality it is often from $125 to $150 per ton. The price of an inferior article is much less. It may now be used in the large dyeing establishments. However, we think it has generally gone into disuse. It is not to be found in any of our stores.

To prepare it for the dyer, it is bruised by machinery to express the watery part; it is afterwards formed into balls and fermented, re-ground, and fermented in vats, where it is evaporated into cakes in the manner of indigo. The haulm is burned for manure or spread over the straw-yard, to be fermented along with straw-dung. To save seed, leave some of the plants undenuded of their leaves the second year, and when it is ripe, in July or August, treat it like turnep-seed. The only diseases to which the woad is liable are the mildew and rust. When young it is often attacked by the fly, and the ground obliged to be resown, and this more than once even on winter-plowed grasslands.



YANKEE CORN SHELLER.

The Yankee Corn Sheller is one of the best. It has an iron hopper simply and firmly secured with a double spring to suit all sized ears, with a balance wheel inside. Thers are two sizes, at $10 and $12. The small size will shell a bushel easily in five minutes. For sale at the Agricultural Warehouse in this city.

THE SCIENCE OF FORCE AND MOTION.

At a recent meeting of the New York State Agricultural Society, says the Scientific American, a report was presented and read by Mr. Delafield, (Vice President,) on essays, experiments and works for schools. Mr. Delafield remarked that the science of Force and Motion was essential and important to the perfection of the farmer's work— that some knowledge of practical mechanics was necessary to a right understanding of the tools used in cultivating the earth, their uses, strength, and proper construction — that the forces of fluids as well as solids, were useful, and needed his study, as facilitating operations in draining, in irrigation, and protecting his soil from injury by running streams — that the common occupation of loading wagons and other farm operations, evidence the need of knowledge of the laws of gravity. With these impressions, it was urged that a premium be offered for the best essay on Mechanics, on the science of Force and Motion, to be divested as far as practicable of technicalities, and illustrating the importance of this branch of science in prosecuting successfully the ordinary pursuits of agriculture.

We learn that the Society determined, at a subsequent meeting, to offer a premium as recommended.

USEFUL RECIPES.

MESSRS. EDITORS :—The following recipes I should be pleased to see published in the Farmer; it would be the means of having them preserved, presuming that most of your subscribers set as much store on it as I do and preserve the Farmer and have it bound at the end of every two years. In this way I consider that I have a book always worth the subscription.

To cure Wounds, Cuts, and Bruises in Horses—Take 1 oz. blue vitriol, 1 oz. Spanish flies, 1 pint of soot; pulverize and mix with 1 lb. of hog's lard. I have made use of the above for a number of years, and find nothing to excel it. Horses receiving severe kicks, or having sore backs, it will heal in less time than anything else I ever tried.

For Sprains, Wind Galls, and Bruises—Take 1 gill spirits of hartshorn, 1 gill spirits of turpentine, 1 gill laudanum, 1 gill sweet oil, 1 oz. camphor, 3 oz. spirits of wine, 1 oz. Castile soap; mix all together. The embrocation formed of the above ingredients I have tried, and find that it will certainly remove wind galls and swellings occasioned by sprains. It will cure blood or bog spavin if attended to in time. I would also say to persons afflicted with rheumatism, give it a trial.

Cure for Ringbone—Take 10 grains sublimate of mercury, 4 oz. spirits of wine, 2 drams tincture of musk, 12 oz. rose water; mix together and rub on the disordered place with a brush, two or three times a day. This I have never given a trial; it is said, however, to have the desired effect.

For Spavin.—Take 1 gill spirits of turpentine, 1 gill aquafortis, 1 gill quicksilver; put into 1 quart of small beer, and let it stand for two days before using. The manner of using is to tie a rag around the end of a stick, saturating it with the mixture, and apply it to the part affected two or three times a day. If it cracks the skin, do not use it so often. A little exercise is necessary.

This latter preparation I have known to effect permanent cures in several instances. Care, however, should be taken in its preparation, which ought to be intrusted to a druggist. Yours, &c., JAS. PATTON.
—*Pattonsville, Pa., Feb'y*, 1950.

ADDRESS BEFORE THE JEFFERSON AG. SOCIETY.

WE selected several extracts last month from the address of MOSES EAMES, Esq., before the Jefferson County Agricultural Society, but they were all crowded out, save one. We now make room for further extracts. Mr. E. is President of the Society, and he is one of those who not only talks, but acts. Our subscription list in Jefferson County shows this.

Agriculture, it is natural to remark, is the great business of our country. Whatever other branch may fail to secure attention, this must not be neglected, because, by it, we are sustained, fed, and clothed. Whatever changes the products of the soil may undergo before they arrive at the period of consumption, they must, nevertheless be sufficient for the demand of the country. Here it will be true for years to come as it is now, that the business of agriculture will give employment to five-sixths of our population. As it is the primary source of individual and national wealth and the mother of manufactures, its improvement and success are intimately connected with national independence, if not with national existence. It has a right to demand of the people, State and government the exercise of a most liberal policy on its behalf.

Any thing which tends to enlighten and to enlarge the mind enlisted in agricultural pursuits, develop the resources of the soil, or to throw light upon the best method of cultivation, may constitute a subject worthy of the most enlightened consideration. Especially is this true in a country like ours, where men cultivate with their hands their own fee simple acres, and from these derive, not only their subsistence, but also their spirit of independence and manly freedom. They are at once the proprietors of the soil, its cultivators, and defenders. Its toils, which would be burdensome and unendurable to men of other professions, form but subjects of pastime with them, and without which their habits and morals would be endangered. Then, whatever other subjects of real or seeming interest may be undervalued or overlooked, the cultivation of the earth should hold its rightful supremacy among all the works of a man's hands. With this, civilization thrives; without it, man is a savage. If there lives a man who may eat his bread with a conscience at peace, it is unquestionably he who has brought that bread out of the earth by his own honest industry. It is reasonably so.

This employment excites none of those hurtful passions which so often prove fatal to domestic peace and destructive to the enjoyment of the common blessings of life. But, on the contrary, it presents fewer temptations to vicious indulgence and is in the highest degree promotive of health and length of days.

But to attain a healthful prosperity, which should be the endeavor of every farmer, there are certain considerations indispensable to be observed. The first obstacle in the way of successful husbandry is the almost universal attempt at doing too much. Good farming and what is generally denominated a large farming business, are practically incompatible the one with the other. He who attempts to do too much in his profession, trade, or husbandry, will expose himself to the liability of doing nothing well. This is proved by all observation to be emphatically true of the cultivation of the soil, and shows clearly that the true policy is to cultivate no more than can be done in the best manner. Above all, if the object is to obtain the best, and, at the same time, the most profitable crop, the farmer cannot give too much heed to the approved methods of enriching the soil. The various manures constitute the great safety-fund of the farmer. On these, with the ordinary blessing of Heaven, he can safely rely for ample returns for all the labor and money expended in the prosecution of his business. There is, perhaps, not a subject pertaining to agriculture of more vital importance to the farming, community. Without manures, in some form, applied to the soil at suitable intervals, the farmer cannot, by any possibility, succeed in his avocation.

* * * * * * * * *

The lawyer, the accountant, the tradesman, all set their clerks and pupils to put in practice, as fast as they are able, the principles they have acquired. But, still, the idea prevails, that the farmer may educate his son in any other branches than those connected with his business, and afterwards make of him a finished farmer; with a constitution undermined, with foolish prejudies imbibed against manual labor, and too strongly tinctured with the general notions of what constitutes a gentleman, he is expected to enter upon the "rough and tumble" of a farmer's life. As things now are, we are destined to have farmers comparatively uneducated in their businesss, or *gentlemen* farmers, whose delicate nerves are shocked at the sight of manual labor. Now, I hold that each of these classes is ill adapted to its business; the first, by knowing too little; the second, by knowing too much of that which is of doubtful utility to any one. This class has been furnished by wealthy parents and guardians with the means of obtaining an education without effort or labor on their own part; and to break over the habits of an early education, and especially where taste is averse to the business about which it is engaged, is too generally out of the question. But, in reference to the first class, its education amounts to the simple bigotry of ignorance. It requires but little acquaintance with the farming communities of our country to convince one that this kind of training bids successful defiance to all improvement in agriculture. But shall the children's teeth be set on edge because the parents have eaten sour grapes? Certainly not; there may be schools which shall inculcate right notions of farming, and which shall contribute, in no trifling degree, to raise the character of this occupation to the rank which it should properly maintain: and I do not hesitate to believe and to say that such a school can be established and prosperously maintained in Jefferson County. This County may claim to rank among the first, if not *the* first, in the State in agricultural improvements."

THE SWEET POTATO.

How can the Sweet Potato be kept for seed through our winter till time to plant? and what is the best mode of culture? C. B. JEWELL.—*Groton, N. Y.*

Although the sweet potato may never become a general or profitable crop for the farmer to raise for market in this latitude, yet we believe nearly every farmer may raise enough, with little trouble, to supply his own table with this luxury; and those in the neighborhood of cities and large villages might make it a profitable crop. Residents of villages who take a pride in cultivating their own gardens and supplying their tables with the fruits of their own industry and skill, would need no other incentive to give the potatoes a trial, than to see, as we have seen them, rivaling the famed Carolinas, served up on the table of a friend,—the product of his own little garden.

SWEET POTATO. *(Convolvulus batatus.)*

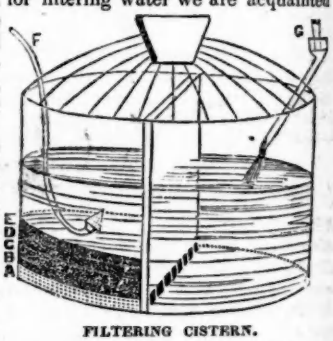
Great difficulty is experienced in preserving the sweet potato through the winter. The general direction given is, to preserve the roots from the extremes of heat and cold, with an exclusion of air and light; but we have tried in various ways to keep them, without success. We have tried them on a shelf in the cellar—in a box of earth—in baked sand;—but in every case have failed to preserve them. A friend in Brighton, in this county, treats them in the following manner, with success. In the fall he plants them in a box of earth and places them with his house plants. In a little while the shoots will show themselves, and when grown enough they are carefully removed by slipping them off without displacing the potato, and planted. They soon take root and form new plants. As soon as the weather is sufficiently warm, (say about the first of June,) these plants are placed in the open ground, according to the directions given in the January number.

Where seed can be obtained in the spring, the better way is to take large potatoes and divide them, as the common potato, and plant in a hot bed. There should be about four inches of mold over the manure. Place the potatoes on this, and cover with about three inches of light earth. As the sprouts appear, draw them, as practiced by our Brighton friend, and plant in your field or garden. If they have the benefit of a cloudy day or a shower about this time, all the better. When treated in this way, a bushel of seed will supply plants for an acre. For the accompanying engraving we are indebted to Allen's American Agriculture.

FILTERING CISTERN.

IT has been said that some men dig their own graves with their teeth. It is certainly true that many diseases that afflict our race are caused by improper eating and drinking—improper as to quality, quantity, and manner. And though it is true that water is the least injurious of all liquids taken into the stomach, and is the drink appointed by the Creator for every living thing; yet, we have no doubt that disease and death is often caused by the use of impure water. It enters into every thing we eat. Our bread as well as our tea and coffee are affected by it. This impurity may be so slight and the injury so little as to be imperceptible for a time; but it is the continual dropping that wears the stone, and the *continued* use of impure water must produce permanent injury to the human system. The young and tender tree may be driven to the ground by a sudden blast; but the genial influences of light, warmth, and air, seconding its natural disposition, it will again recover its erect position. Let the same tree be planted where it is subject to the prevailing and almost *constant* western winds, and it will be warped by it—trunk, branches, and foliage driven to the east.

Various filterers have been invented for purifying water by filtering. Most of these have been too troublesome in their operation to be favorably received by farmers. It may be well enough for a man of leisure, whose main business is to do the "*chores*," to be filtering water by the pailful; but the farmer has other duties demanding his time and attention. The best plan for filtering water we are acquainted with, is the one exhibited in the engraving. It is a cistern divided into two parts. G. is the pipe for conducting the water into the cistern; F, pipe connected with pump, for extracting the filtered water; A, B, &c., layers of charcoal, gravel, &c.; the black dots are passages for the water from one part of the cistern to the other. The engraving, with the following description, is from Allen's American Farm Book:



FILTERING CISTERN.

"They may be formed in various ways, and of different materials—stone, brick, or even wood; though the two former are preferable. They should be permanently divided into two apartments, one to receive the water, and another for a reservoir to contain such as is ready for use. Alternate layers of gravel, sand, and charcoal at the bottom of the first, and sand and gravel in the last, are sufficient; the water being allowed to pass through the several layers mentioned, will be rendered perfectly free from all impurities. Occasional cleaning may be necessary, and the substitution of new filtering materials will at all times keep them sweet.

Horticultural Department.

EDITED BY P. BARRY.

PRUNING AND TRAINING OF HARDY GRAPE VINES ON GARDEN WALLS, HOUSES, AND TRELLISES.

At the request of several correspondents we take this occasion to present a few brief hints on the pruning and training of Hardy Grapes, and particularly on garden walls and trellises. On this subject there is a very general lack of information; and this, added to a very prevalent negligence, has heretofore greatly diminished both the pleasure and profit which the judicious culture of this fruit is sure to yield. There is scarcely a garden of any pretension in this city, and very few in the surrounding country, but includes among their fruit trees at *least one* grape vine; but the training and pruning are so imperfect or so entirely neglected, that they are in most cases both unsightly and unproductive. In many instances very tasteful arbors and trellises are erected; but the unskillful and careless manner in which the vines are carried or allowed to run over over them, destroys their effect.

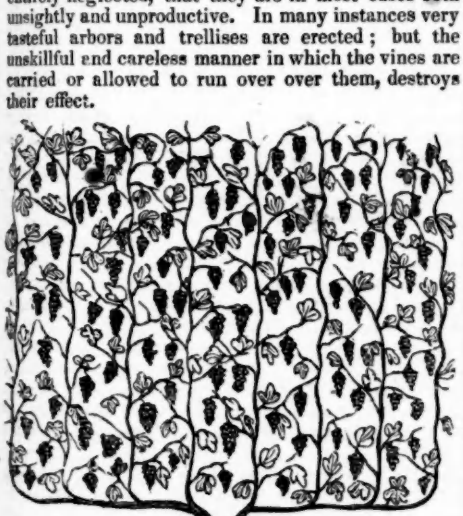


Fig. 1.

Nearly all the complaints that reach us of the vines not bearing, of fruit being small or not ripening well, are attributable to this bad pruning and training more than to defects in the soil; for our native hardy grapes, such as the Isabella, flourish in *all good garden soils* with dry sub-soils. We have not seen an exception.

The management of the foreign grape in our climate, either out of doors or in, requires considerable skill and experience to render success uniform and complete; but the treatment which our hardy native sorts require, is so truly simple that every man may, with a knowledge of a few leading principles and mechanical operations, manage them with as much success as he does a hill of corn or potatoes.

1st. The grape vine should not only be planted in a *warm, dry,* and *rich soil,* but it should have such an exposure to the south or southeast, and its branches be so trained and spread out, that every part may enjoy fully the advantages of light and heat — both indispensable to the maturation of the fruit and the wood. Soft, watery, unripe and unproductive shoots, and sour, unripe fruit, are invariably the results of a dark, northerly aspect, and allowing the branches to ramble in thickets in their natural way.

Fig. 2.

2d. During the growing season, the whole force of the vine should be directed to the sustenance of the fruit and the necessary shoots for training and bearing the following year. This point is secured by rubbing or pinching off, early in the season, (May) all superfluous or misplaced shoots. It frequently happens, in vines left to themselves or badly treated, that these superfluous and misplaced shoots, which are or ought to be cut off at the next pruning, destroy the regularity of growth in the vine by attracting an undue amount of the sap to them and stinting the allowance in contiguous parts. Thus vigorous shoots starting from the base of the stem acquire an immense developement at the expense of all the upper and bearing portions. Connected with this is the shortening of the bearing shoots, (in August or September,) by nipping off the extremeties at two or three eyes beyond the fruit. This checks the flow of the sap towards the points, and turns it to the use of the fruit and the shoots necessary for the extension of the vine. These simple attentions constitute the substance of what is called "*Summer Pruning,*" and though generally overlooked, are of the utmost importance, as without them we cannot hope for large, well ripened bunches of fruit, nor vigorous mature shoots for the next season. Some people have advised the removal of the leaves around the bunches of fruit, towards autumn, to hasten their ripening; but this is a fatal error. Last season we saw the effects of this on a vine trained on an arbor in the outskirts of this city. A great portion of the leaves had been carefully cut off with scissors by the lady proprietor, who followed some empirical advice, and she had the misfortune to see her fruit all shrivelled up instead of ripened. This was a natural result.

3d. The grape vine produces its fruits on shoots

of the current year from the last year's growth. That is, the buds on last year's shoots will next spring produce the shoots that will bear the fruit. Shoots from the older parts of the tree do not bear fruit, and the same shoots bear only once. Fig. 2 shows a portion of last year's wood with a fruit branch produced from one of its buds. It is important to understand this well, as it renders the necessity for a supply of vigorous young shoots quite obvious. We frequently see the lower parts of the main branches, or frame-work of grape vines, trained on houses or trellises, all destitute of young wood, like the lower parts of neglected peach trees. This was caused by either bad or no pruning. The growth went on mainly at the points, and the lower parts were starved out and the best portions of the vine rendered fruitless.

Having touched upon these general points, we may take up training and pruning more minutely. First, in regard to trellises. Many people are in the habit of training vines on the walls of houses; but the practice is bad, both for the house and the vine. It is much better to make a trellis that will stand a foot or two from the wall and be attached to it by brackets. Annexed is the figure of one, the principal

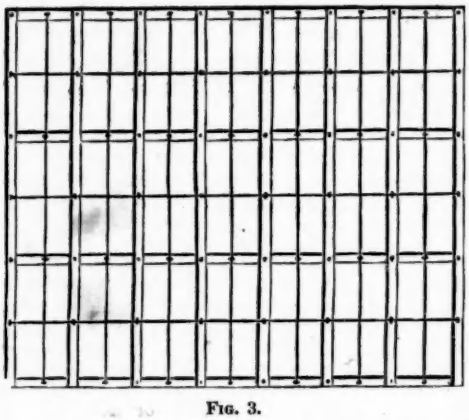


Fig. 3.

bars or frame work of which are boards three inches wide and one and a half inches thick nailed together at the angles. This trellis is intended for one vine, and may be of the height of the wall or house it is intended to cover. The vertical bars are eight in number, to each of which one of the permanent canes or branches of the vine is to be fastened. These are 3 feet apart, and between them, in the center, are rods of No. 12 wire, to which the lateral fruit buds may be attached with strings, or will attach themselves by the tendrills. The first, or lowest, cross bar may be two or three feet from the ground, as most convenient. Rods of wire may also be carried at equal distances between the cross bars, to facilitate the fastening of the lateral shoots.

The training of a vine on such a trellis as this is a very simple matter, and produces to the sight a most pleasing effect; indeed, it would be a highly ornamental screen for any place where a screen might be wanted, without interfering with either walls or windows. For garden arbors the same mode of training is equally suitable.

This form, as will be seen by figure 1, copied from "Allen's Treatise on the Vine," is that of two horizontal branches, one trained to the right and the other to the left, on the lower bar of the trellis. From these, eight permanent canes or branches are trained on the vertical posts. These are to be furnished all up the sides, at proper distances, with lateral spurs to produce the bearing shoots. To produce and manage a vine in this way, requires some such operations as the following: — Let us take a young vine as it is usually sent out from the nursery—one, two, or three years old. This will either be a single shoot one and a half to three feet in length, or there may be several branches one to two feet long, as the vigor of the plant may be. If one year old — a single shoot — the plant should be cut back, when planted, to within two eyes of the base; and if older, with some branches, all the weaker ones of them will be cut clean off, and the strongest one cut back to the last two eyes of the young wood. These vines, then, are all in the same situation, and are planted at the center of the trellis. When they commence growing, all the shoots but one, and that the strongest, are rubbed off, and this single shoot is trained and allowed to grow uninterruptedly till September, when the top may be nipped off to cause the wood to mature and strengthen. Next February this shoot is cut back to within three eyes of its starting point. These eyes will form shoots. The weakest one must be removed in May, and the two strongest carefully tied up and encouraged till September, when they will be topped as before. By this time these shoots will be vigorous and at least ten or twelve feet long, if the vine be healthy and in a good soil. (Close to where we write, a vine of Isabella last season, second after planting, made a strong shoot fifteen feet long.) Up to this time no fruit should be allowed. With these two shoots we commence the frame-work of the vine. At the February pruning, these shoots are cut back to within two or three feet of their base, and are then tied down, one to the right and one to the left, on the first horizontal bar of the trellis. Each of these will produce two shoots, one to be trained up to the first central post of its division of the trellis, and the other to continue the extension of the vine in a horizontal direction. All the other eyes or buds are cut out at the time of fastening down the branches. During the season, the requisite care will be to keep down all other shoots and to prevent too great a growth of lateral shoots on the young wood. Shoots that are growing in a horizontal direction are more disposed to produce lateral shoots than those that have a vertical or natural direction. The February following, these vertical shoots and the horizontal ones are cut back in proportion to their vigor, say within four to six eyes of the old wood. Each will produce a number of fruit shoots, and two more vertical shoots may be raised to the trellis from the horizontal ones, by the same process as the first year. Care must be taken to carry the leading shoots, for the extension of the vine, upward and outward, by the same system, until the trellis is covered. The vine must not be overtasked with the production of either too much wood or too much fruit. The success of the training depends upon keeping up a vigorous and uniform vegetation in all its parts. This is done by following the suggestions in the first part of these remarks.

To continue farther the treatment of the vine in its annual course, would be merely repeating what we have already said. Some people may think that there is too much system about this, and too much

labor involved for them to adopt it. To such we would say, that system in this, as in all things, is necessary. To train a vine over an arbor or trellis properly, nothing short of labor will do; and we know of no system requiring less labor than that we have in part described.

Fig. 4.

Those who wish their vines to grow without training, should plant them near the root of some old tree or in the corner of a rail fence — they have no business with walls or trellises. A modification of this method may be adopted; but in any case it must be remembered that leading shoots must be trained at proper distances for the frame-work, and these must be furnished with the material for bearing; and the training at random is neither satisfactory or safe.

In pruning the vine, and indeed all trees, the knife should be as sharp as a razor, to make a clean cut without the application of a great dragging force, and owing to the softness of its wood and large pith, nearly half an inch should be left between the cut and the bud cut to, (see figure 4;) and in the case of horizontal shoots, the cut should slope downwards. These precautions are necessary to guard the bud from injury.

NORTH AMERICAN POMOLOGICAL CONVENTION.

The proceedings of this Convention, held at Syracuse September 14, 1849, have been published in a neat pamphlet of some sixty pages, containing the discussions on fruits, with reports from J. A. Kennicot of Illinois; Dr. Herman Wendell of Albany; J. W. Knevels, Esq., of Fishkill, N. Y.; Jno. W. Bailey, Esq., of Plattsburg, N. Y.; W. R. Coppock, Esq., of Buffalo; F. R. Elliott, Esq., of Cleveland; F. K. Phœnix, Esq., of Wisconsin; J. C. Holmes, Esq., of Detroit; and C. H. Goodrich, Esq., of Vermont.

Dr. Kennicot's report occupies about one-fourth of the pamphlet, and contains a great amount of local information regarding soil, climate, nurseries, orchards, &c. This, and the very agreeable style of the Doctor, makes it not only the most valuable, but the most readable paper of the whole. Some of his statistics of nurseries in Illinois are certainly surprising, and, as he says, afford the best evidence of what the people of this region are doing in the way of planting orchards. On this point the following extracts will be interesting. He says that "within a space of from fifty to sixty miles north, west, and south of The Grove, (his residence,) there are not less than 50 nursery establishments, twelve of which are in this county and most of the others within twenty-five miles of me." * * "In Kane Co., six nurseries are already established, setting annually 100,000 grafts or more." Mr. Harkness of Peoria, writes him — "We have started 31,000 grafts, 80,000 seedlings for budding, 40,000 stocks for grafting, 200,000 Virginia thorn plants, 350,000 wild orange plants, &c." A Mr. Slater of St. Albans, propagates all his fruit trees, except peaches and nectarines, by *layering*, and sells at 6¼ cents a piece "all round." To these statistics the Doctor adds —

"It strikes me that we are, at least about here, as they say south, 'running the thing into the ground;' and yet, this one fact speaks volumes for the good taste and intelligence of our inhabitants, and the adaptation of our soil and climate to the cultivation of fruits. Nurserymen are, I believe, always intelligent men, and should be shrewd observers, though I fear we are *not all* good 'business men.' Our 'bumps' of benevolence grow with our trees, and we are very apt to think that we are benefiting ourselves when we are doing good to others. Our 'hope is large;' our fruition small. We create the plant; others eat the fruit, or enjoy the profits. But the practice of our benificent profession humanizes us, and simplifies and refines our tastes, and makes us better and happier, if not richer and wiser men. Why then should we not be satisfied with our share of the good we create?"

There are many points in this report to which we may refer hereafter, when treating of the subjects to which they relate.

NEW FRUITS.

Kirtland Pear.—We find a colored drawing and description of this new pear, by Prof. J. P. Kirtland of Cleveland. It was raised from seed of the Seckel, and is stated to be of medium size, color varying from a dull green to a rich crimson russet. "In point of hardiness and productiveness it far excels the Seckel, and in flavor is esteemed by many as superior." This is a high character, and Prof. Kirtland is good authority.

Kingsley Apple. — Dr. Wendell, in his report, gives an account of a seedling apple originated near Pittsford, in this county, and brought to notice by Dr. Moses Long of this city. It is called "Kingsley," having originated on the farm of a gentleman by that name. The tree is stated to be hardy and a profuse bearer. In 1848, the original tree, growing in a pasture lot, produced thirty bushels of fruit. The specimens from which his report was made "were eaten on the 10th of June, and were as fresh and free from defect as when taken from the tree."

Shannon Cherry.—Mr. Elliot gives a description of a valuable Morello cherry originated with Prof. Kirtland twenty years since, but never before described. It is described as larger than the May Duke, of a dark purplish red color, ripening 12th to 15th of July. We have several excellent cherries of the Morello class, ripening long after this.

DECAY OF FRUIT AT THE TIME OF MATURITY.

Mr. Elliott, after speaking of several causes, says that it is not improbable that it is induced by the same causes that produce leaf-blight in the pear and plum, viz: "a want of some material in the soil." Mr. Elliott is so taken with "special manures," that his imagination begins to run wild on the subject. It is very far from being a "fixed fact" that the leaf blight is owing to defects of the soil. We find it a wide spread malady, appearing in various soils, and it is said, in some parts of Europe as well as in this country. We know of no experiments that have established anything of the sort. It is a matter that yet requires careful investigation. But if it were established, how can we suppose that the same cause could affect the ripening fruit of the cherry. A pear tree leaf and a ripe cherry are of very different materials.

A great deal of successful culture depends on giving to particular species of trees their appropriate soil and manure as far as sound experience teaches us; but cultivators must guard against falling into the same error on the "*special*" manure subject that a large portion of the community have suffered themselves to be led into, by "special" or patent medicine compounders and venders.

THE MAGNOLIAS.

P. BARRY, Esq. : — *Dear Sir* — I am highly pleased with the article on Magnolias, in the January number of your paper. I had for some time intended to write to you for information respecting the propagation and culture of that interesting family of trees. The Magnolia acuminata is indigenous in this town, and when growing in open ground it forms a beautiful tree, not surpassed by any of our native forest trees. I have frequently transplanted them from the woods, but have never succeeded in making one live. They appeared to flourish for a time, but eventually, in spite of all the care bestowed upon them, they invariably dwindled and died, and without my being able to discover the reason why. Mr. DAVID THOMAS of Aurora, stated in the Genesee Farmer several years ago, that he had been unsuccessful in cultivating the Glanca and Tripetela, and that the plants when young required protection in this latitude ; and at a still later period he has said, that on a bed of sand brought more than twenty miles, he had Magnolia Glanca growing in great luxuriance ; all attempts to cultivate them in common garden soil had failed. Now I wish to be informed through the columns of your paper, how to succeed in the cultivation of the Magnolias. What soil and situation do they require ? Where can seeds of the different kinds be obtained that can be depended upon ? And how must I manage with the seed to insure success ? I want all the information in full, necessary to succeed with these invaluable trees for ornamental purposes.

I would like to know if your Taxodium Sempervireus is the same kind with that mentioned by DE CANDALLE as growing near Chapultepec in Mexico, (Cypresus disticha, Linn.,) one hundred and seventeen feet in circumference, and supposed to be several thousand years of age. (See Sears' Wonders of the World, page 324, Art. Chestnut Tree of Mount Ætna.)

Please answer in the March number of your paper. I would like to know as early in the season as a correct judgment can be formed how the new evergreens stand the winter. Yours, &c., J. ELLINGWOOD. — *Gainesville, Wyo. Co., N. Y., Feb'y*, 1850.

THE transplantation of the Magnolias from their native situations in the woods, is exceedingly difficult and very seldom attended with success ; and even from nurseries they are more uncertain than most other trees. The chief reason is, that new roots are emitted very slowly, and only when the trees have not suffered exposure and are planted in a favorable situation. Trees taken from the woods have usually tap roots only, and it is almost impossible to induce in them the emission of fibres. It is the same, as you are no doubt aware, with the Tulip tree, which is closely allied to the Magnolia.

The usual method employed by nurserymen to raise seedling Magnolias, is to plant the seeds as soon as ripe, in shallow boxes, say six to eight inches deep, filled with about equal parts of sandy loam and leaf-mold. The seeds may be covered about one inch deep. The boxes can be wintered in a cellar free from vermin. Another way is, to put the seed away as soon as gathered, in boxes of sand, and let it remain there till spring, (in a cellar.) Then prepare a spot of ground with compost such as we have mentioned, and sow the seeds and cover with a common hot-bed frame. This affords means of protecting the seedlings from the sun and wind, which often kill them in the open ground just when vegetating. Water can also be given, when necessary, in this way. The fierce mid-day sun should not be permitted to fall upon them. The first winter the young plants may be protected with leaves, and in the spring following transplanted into nursery rows. They should have a deep, rich, sandy soil. We find no difficulty in growing all the Magnolias here in common garden soil, when the plants are raised in this way from seed.

The *Taxodium distichum*, or Cypressus of LINN., alluded to, is a deciduous tree. The *Taxodium sempervireus* is evergreen, as its specific name indicates, — quite recently found in California — there called "Red Wood." It attains an immense size.

We will report on the new evergreens at the proper time.

TREATMENT OF PEAR SEEDLINGS.

MR. BARRY : — Having some pear seedlings of one year's growth, with tap-roots from 9 to 13 inches in length, to transplant next spring, I thought I would ask thy advice how best to do do it. Would thou recommend cutting off the tap-roots ? (and if so, to what length ?) or would thou prefer the method recommended in "Cole's American Fruit Book," of turning these roots to one side in the manner of planting a grape cutting ? and in either or both cases, would thou head back the tops ? and if so, how much ? (*a*)

I would also ask how best to make and manage a hot-bed for propagating sweet potato plants, and a garden-frame for starting gooseberry, grape, and other cuttings, in the spring ? (*b*)

If thou wilt answer these inquiries through the medium of the Genesee Farmer, thou wilt much oblige thy friend, B. W. STEER.—*Raisin, Mich., 1st mo.*, 1850.

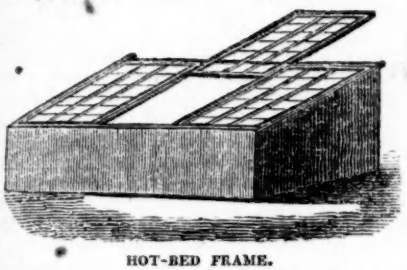
P. S. I cannot close this without alluding to the great interest that is taken in horticulture in this section of the country. I believe that Michigan is yet destined to equal, if not surpass, Western New York in the production of fine fruit. The variety, beauty, and excellence of the specimens of apples, quinces, grapes, &c., &c., exhibited at Adrian during the annual fair of the Lenawee County Agricultural and Horticultural Society, would do honor to any State in the Union. B. W. S.

(*a*) OUR practice is to cut off the tap-roots at a point where the size becomes very sensibly diminished, as in the cut. The stocks are not only planted with greater facility, but the emission of lateral roots is favored. In the case of seedling pears, the roots are so large in proportion to the stem that very slight amputations are necessary to reduce them to a balance with the roots. We can give no precise rule, as it depends entirely on the character and size of the plant. Tall, slender plants require more cutting back than stout ones. We are not very particular in the matter. Our workmen usually take them up in handfuls, and with two cuts dress the roots and tops of a dozen to twenty plants, or more, as the size may permit.

Pear seedling pruned ready for planting.

(*b*) A hot-bed frame is simply a rectangular box, of any size you choose to make it. Inch and a half or two inch board may be employed in its construction. The back part should be about double the height of the front. (See cut.) The sashes are usually about three feet wide. The more common size for a hot-bed is nine or ten feet long and five wide, so that three sashes of three feet wide and five feet long will cover it. But you will of course adapt the size to your purpose. Light rafters are placed across from back to front for the sashes to rest on. For propagating sweet potatoes, or anything else that needs artificial heat, a bed of manure three feet or so in depth is prepared, and this frame placed upon it. Fresh stable manure that has been repeatedly turned over, is the best material. Dry leaves

may be advantageously mixed, as they modify as well as retain the heat of the manure. For seeds and potato sets, &c., three to six inches of good fine earth is placed over the manure, and when the violent heat has been allowed to pass off for a day or two, the seeds, &c., may be planted. Hot-beds require to be carefully protected from the cold by matts, &c., and the plants require regular and careful watering, shading perhaps, from a very hot sun, and airing in mild days; but in doing this, be cautious.



HOT-BED FRAME.

A frame for your cuttings is but the hot-bed frame we have described; but for such as gooseberries, grapes, &c., you need no bottom heat. Prepare a bed to set the frame on, of light, friable, sandy soil, and in this put your cuttings. In this frame you can plant earlier than in the open ground, and protect them against sudden and injurious changes of the weather. Hot-beds and frames should face the south or southeast.

SELECTION OF STOCKS FOR GRAFTING.

We have a communication from Jas. H. Watts, Esq., on this subject, the substance of which is, "that scions of good sorts should be grafted into trees that assimilate somewhat with the scions in *quality, flavor*, and *growth*."

This is, in our opinion, quite unnecessary, and would be at the same time quite impracticable to any considerable extent. We understand Mr. Watts to have reference only to the re-grafting of large trees.

We do not dispute but that the stock does exercise an influence on the fruit; but the instances when such an influence is observable are very few, and in the few that are occasionally observed the cause may be found somewhere else than in the stock. It would be wrong to graft *only* on stocks that assimilate in *growth* to the scion. A proceeding quite opposite is in general practice, and is highly advantageous, viz: that of grafting *weak* and *slender* growing sorts on *vigorous* stocks. And stocks the most opposite in more characters than one are frequently resorted to with advantage, for ameliorating or modifying some particular character of the fruit, or peculiarity of the tree in its growth or bearing. What we would counsel, *in all cases*, would be to select and graft *only* upon sound, healthy, and vigorous stocks, whether large trees or small; and that scions, *too*, be chosen from equally sound and healthy trees. Feeble growth, disease, unproductiveness and death may be expected from grafting enfeebled stocks, old or young. Whether the stocks produce sweet or sour fruit, is a matter of little consequence in general; for the country is full of trees producing the most luscious fruit, on stocks the fruit of which in acidity would, to use Mr. Watts' expression, "put vinegar to the blush."

LIGHT IN THE EAST.

In the address of Asa T. Newhall, before the Essex (Mass.) Agricultural Society, we find the following:

"We cannot prolong the existence of any particular kind of fruit, by engrafting from old into young trees, beyond the natural life of the original tree, or the time it would cease to bear by old age, if living." * * "We might as well undertake to renew the age of an old cow by turning her into a new pasture, as the age of any species of fruit by grafting into young trees."

It is certainly surprising to find, at this day, such doctrines inculcated in an Agricultural address, within speaking distance of Boston. We apprehend that even in Massachusetts there is a great deal of the philosophy of culture to be learned. There can not be a more absurd notion entertained than that in the above extract. Every man who is at all familiar with the history of our cultivated fruits, knows that many varieties that are now, to all appearances, in the full vigor of youth, originated many generations ago. A peach tree will not, under the most favorable circumstances, live and bear over forty or fifty years, and few attain that; and yet we have varieties much older than that as healthy and vigorous as ever. The parent trees of many of our best apples and pears are long since dead of age, but the young trees propagated from them are at this moment in youth and vigor. See even in the case of *annual* plants — the petunia is a familiar instance — we sow the seeds in the spring, the plant grows, blossoms, produces seed, and dies the same season; but if we take cuttings of this plant while growing, keep them in a house over winter, and put them out again in the spring, they will blossom as freely and profusely as the parent; and we may in this way perpetuate that plant for any length of time. So in case of all fruit and ornamental trees, shrubs and plants cultivated by budding, grafting, layering, and other means of propagation, properly performed, we can perpetuate them to an indefinite period. It is unskillful and careless culture, and vicious systems of propagation, that produce deterioration, attributed erroneously to old age.

Pruning the Peach.—Those who intend to pursue the system of pruning the peach recommended in our February number, and who have not done so already, must remember that there is no time to be lost. It should be done at once. We are happy to learn from our correspondents, that the subject is attracting particular attention at this time.

ANSWERS TO CORRESPONDENTS.

A. W., *Marcellus*.—You are in error, regarding the production of different sorts of fruit on the same graft in consequence of the flowers having been fertilized by another variety. The effects of the fertilization, or crossing, would be developed only in the productions of the seed. The russety apple you found among your Greenings was nothing but a Greening; the russety character had been acquired from some particular cause that could not probably be explained; such instances occur frequently. So with all fruits. You will therefore excuse us from publishing your communication.

In regard to the blighted pear tree referred to, the fact was no doubt as you state; for if the whole bark had been *dead*, the tree could not have been saved. The reason is so obvious as to require no comment.

☞ We wish our friends and correspondents to bear in mind that we cannot appropriate our limited space to the discussion of wild theories. We would be pleased, now and again, to take them up, but we must deny ourselves the pleasure. We believe that we shall best consult the wants and wishes of those who read this paper, by devoting our few columns to the plain exposition of *sound practice*.

Ladies' Department.

A GOSSIP WITH THE LADIES.

THE people and Legislatures of several States are talking pretty seriously about Agricultural Schools and Colleges. Let us talk a little on a subject of equal importance — the education of the fair daughters of our land for the responsible duties of life. It may be said, and truly, that the females of this land are better educated than those of any other country, and that the studies pursued in our female seminaries are of a more solid character than those of similar seminaries in Europe. We grant all this; and still we say that the system of female education is defective — more than this, destructive to the health and consequent happiness of thousands, — making the "sweet home" a home of anxiety, disease and wretchedness, and filling many an untimely grave. You may consider this rather a severe and random assertion; but it is too strictly and too fearfully true.

Travel our country over. Look at the young mothers of our land. Are they pictures of health and vigor, or of infirmity and disease? Does the bloom on the cheek denote that the blood is playing healthfully through the veins, or does the sallow complexion and shrunken features show that the purple tide pursues slowly and unwillingly its sluggish course? Does the sparkling eye exhibit the buoyancy of the feelings — is the joy of the heart shown through these windows of the soul; or is the melancholy, sunken eye, the index of a sad heart? Mr. COLMAN, in his European tour, was surprised at the health and consequent buoyancy of spirits of the English women — the mother the equal of the daughter in health and vigor. On the contrary, the wan and faded appearance of American women is remarked by all travellers. The celebrated DE TOCQUEVILLE spoke much on this subject. Miss BEECHER says — "An English mother at thirty or thirty-five, is in the full bloom of perfect womanhood; as fresh and healthful as her daughters. But where are the American mothers who can reach this period unfaded and unworn?"

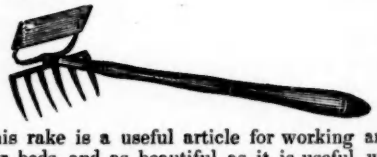
How few reach this period of age without suffering from head-ache, tic dolereaux, diseases of the spine, and other nervous diseases so common to the women of this country. We might show the extent of this evil more fully; but, as it will be admitted, we think, that the health and beauty of American ladies are but short lived — that they are peculiarly liable to nervous diseases, destroying their own happiness and the happiness of their families, — and finally life itself — it will be more profitable that we should point out the CAUSE and the REMEDY.

The CAUSE commences in the cradle, and too often ends in the grave. In infancy, the mother is afraid to have a little of heaven's fresh and balmy air breathe upon her child. Before the child is of proper age it is sent to school — its mental faculties taxed to their utmost capacity, and but little time or opportunity given for the development of the powers of the body by air and exercise. It grows up like a house-plant that has been deprived of light and air — weak and puny. The seeds of future suffering, perhaps early death, planted in its frame.

The child is become a young woman; and never having been accustomed to out-door exercise, she has no relish for it, — indeed, custom and fashion are opposed to it. A romp on the green — laboring with the hoe and spade among the weeds and flowers, would be decidedly vulgar, and show a want of refinement. Walking a mile or two every day would be an outrageous imposition — father or brother must "harness up." The young lady must sit in the rocking-chair and read silly novels, exciting the imagination at the expense of the heart and health — attend balls, and "dance all night" for exercise, feed on pickles, sweet cake, and other indigestible trash, when the stomach should be at rest, and the whole body enjoying "nature's sweet restorer, balmy sleep." Young women thus grow up with impaired constitutions; and when active life with its cares and responsibilities comes upon them, they are unequal to the task, fall victims to their own and their parent's folly, and either drag out a miserable life, or fill an early grave. "The delicate and feeble appearance of many American women," says Miss BEECHER, "is chiefly owing to the little use they make of their muscles. Many a pale, puny, shad-shaped girl, would have become a plump, rosy, well-formed person, if half the exercise afforded to her brothers in the open air had been secured to her during childhood and youth."

The REMEDY, then, is exercise, and exercise out-of-doors. The health of children must not be sacrificed to books. No over-anxiety of the parent must be permitted to bring on these very evils the parent dreads. Children love exercise — it is natural for them, and necessary to the development of their bodies — and they will have it, if not prevented by their parents. But exercise must not end with childhood. Our young ladies must walk, ride, and work in the open air. Never mind a little tanning in the sun and wind — health and comfort are cheaply purchased even at the expense of a fair complexion. By riding, we don't mean riding in a spring buggy with a cushioned seat — but horse-back. Saddle the horse yourself, young woman, and ride three or four miles every day. Or you can ramble through the woods and over the farm and fences. And have a garden — cultivate roses and carnations, and phloxes, and shrubs — and take good care of them. It will afford you exercise and pleasure; it will teach you more of nature than a thousand novels.

We had got thus far, and was about bringing our gossip to an end, when we were presented by Messrs. RAPALJE & BRIGGS, of the Genesee Agricultural Warehouse, with a *Ladie's Floral Rake*, a cut of which we give. We would willingly make a present of it to any of our fair readers who would make a good use of it.



This rake is a useful article for working among flower beds, and as beautiful as it is useful, with a black walnut handle, and might be handled by a lady without mittens. The neat and tasty manner in which Garden Implements for ladies are got up at the present day, is enough to tempt any lady to try her hand at gardening.

Mothers, learn your children to love gardening — allot them a patch of ground for their own garden — get them such little implements as will entice them to work. It will do more to save them from years of suffering than all the drugs and sugar-pills in the universe.

Youths' Department.

AGRICULTURE.—No. 2.

In our last number we endeavored to give some information to the youth, on THE NATURE OF CROPS. We stated that all vegetable substances consisted of *two parts*, one called the ORGANIC and the other the INORGANIC — the *organic* part being that which is *burned away* when any vegetable substance, such as wood or straw, is set on fire; the *inorganic* part being that which remains (the ash) after the wood or straw is burned. The ORGANIC part, (or that part which is burned away,) we also told you was composed of *carbon, hydrogen, oxygen,* and *nitrogen;* and we shall now try to give you some idea of the INORGANIC. But you must not think, because we spoke of the organic part as being *burned away,* that it is *destroyed.* We can destroy nothing. We cannot destroy a stick of wood or a corn stalk. We may *change its form* — we may, indeed, cause the greater part to vanish out of our sight; but it is not lost, and is restored again to the earth. That omnipotent power that formed the first blade of grass, is alone able to destroy it.

The INORGANIC part of plants consists of *potash, lime, magnesia, soda, oxide of iron, oxide of manganese, sulphuric acid,* or oil of vitriol, *phosphoric acid, silica,* and *chlorine.*

Potash is a white powder, and is obtained by washing wood ashes and afterwards boiling the liquid to dryness. It is an *alkali,* with a hot, acrid taste, having the power of neutralizing, or destroying acids. Those boys who have eaten hot biscuits and happened to get a lump of saleratus in their mouths, know something of the taste of an alkali. When strong, it attacks all organic matter, dissolving and disorganizing them, and forms a compound with fat, called soap. It is to procure the potash that the farmer's wife washes or leaches ashes to make soft-soap.

Lime, the appearance of which all are acquainted with, is obtained by burning common lime-stone. It has a strong tendency to combine with water. This you can see by pouring water upon it, which it eagerly drinks up and becomes *slaked.*

Magnesia is a white powder, and is called in the drug-stores, calcined magnesia. It is a tasteless, earthy matter, and is found in some parts of the world forming rocky masses and veins. It is obtained chiefly from magnesian lime-stone and from sea water.

Soda is manufactured from sea-salt. It is a chrystalized substance, but becomes dry and powdery on being exposed to the air.

Oxide of Iron is iron-rust. When iron is exposed to the air, it becomes covered with rust. This is caused by the iron attracting oxygen gas from the atmosphere, and this is the reason it is called *oxide of iron.*

Oxide of Manganese has the appearance of iron-rust, and is found in plants only in small quantities.

Sulphuric acid, or oil of vitriol, is a very sour, burning liquid. A piece of straw put into it will be found to be burned black. It is made by burning sulphur. BOUSSINGAULT says that some of the streams which come from the volcanic regions of the Andes are rendered sour by this acid. It exists in gypsum and alum.

Phosphoric acid, like oil of vitriol, is very sour, and will corrode and destroy vegtable substances. It is formed by burning phosphorus in the air. Phosphorus is the substance that causes the common friction matches to take fire so readily. If you rub a friction match so as to cause it to take fire, you will notice that it burns for a short time with a white flame, and a white smoke arises. This white flame is the burning of the phosphorus, and the white smoke is phosphoric acid.

Silica is the name given by chemists, to flint, rock-crystal, and sand-stone. It is one of the most abundant substances in nature. It exists abundantly in almost all soils, and is found in the ashes of all plants, without exception. Glass is made of *silica* mixed with potash, soda, or lime, and heated until it melts.

Chlorine is a kind of air of a greenish yellow color, and a strong, suffocating smell. It is nearly two and a half times heavier than common air, and therefore may be readily poured from one vessel to another, (as seen in figure 3.) It exists in large quantites in common salt. If you take a little dry chloride of lime and put it into a tall glass, (figure 3,) and pour upon it strong oil of vitriol, chlorine gas will be given off, and fill the lower part of the glass. You can then see its properties, and pour it from one glass to another.

FIG. 3.

These substances are all to be found in the ashes of our usually cultivated plants. Some plants leave more ash than others, and these substances exist in different proportions in plants. In our next we shall speak particularly of this subject. Having now given the elements of plants, we are prepared to apply these facts; for the knowledge we thus gain will be of little benefit, unless we apply it to useful purposes.

MARCH.

BY W. C. BRYANT.

THE stormy March is come at last,
With wind, and cloud, and changing skies;
I hear the rushing of the blast
That through the snowy valley flies.

Ah! passing few are they who speak,
Wild, stormy month, in praise of thee;
Yet, though thy winds are loud and bleak,
Thou art a welcome month to me.

For thou to northern lands again,
The glad and glorious sun doth bring,
And thou hast joined the gentle train,
And wear'st the gentle name of Spring.

And in thy reign of blast and storm,
Smiles many a long, bright, sunny day,
When the changed winds are soft and warm,
And heaven puts on the blue of May.

Then sing aloud the gushing rills
And the full springs, from frost set free,
That, brightly leaping down the hills,
Are just set out to meet the sea.

The year's departing beauty hides
Of wintry storms the sullen threat;
But in thy sternest frown abides
A look of kindly promise yet.

Thou bring'st the hope of those calm skies,
And that soft time of sunny showers,
When the wide bloom on earth that lies,
Seems of a brighter world than ours.

Editor's Table.

Correspondents must not be discouraged because their communications are not published as soon as received. We have quite a number reserved for future publication. Several answers to Correspondents are also deferred.

Agricultural Books for School Libraries. — We have been requested to call the attention of Trustees to the propriety of purchasing Agricultural Books for School Libraries. We think the bare mention of the matter will suffice. We will not insult the intelligence of Trustees who are Farmers, by attempting to show the propriety of this course, or urge upon them the performance of this duty. We have a good assortment of Agricultural Books for sale at our office — the best works published. In our next number we will give a full list, with prices.

Merino Sheep. — We had the pleasure of examining a fine lot of Merino Sheep, on their way from Vermont to Chautauque County, in this State. They were owned by A. S. Patterson, of Perry Center, Wyoming Co., and J. D. Patterson, of Westfield, Chautauque Co. They were selected from the flocks of Edwin and William Hammond, of Middlebury, and Jesse Hinds, of Brandon, Vt.

Monroe County Agricultural Society. — A meeting of the Executive Committee of this Society will be held at the Office of the Genesee Farmer, on Wednesday, the 13th of March, at 11 o'clock A. M. The President requests us to ask a general attendance of the Committee.

Stockbridge Mechanical and Agricultural Association. — We have received the proceedings of a meeting held at Stockbridge, Madison co., N. Y., for the formation of an Association with the above title, with the Constitution, and Officers elected. The object of the Association is "the mutual improvement of its members in their occupations." John Potter, Esq., is the President of the Association. May success attend so worthy an enterprise.

Fowls. — Those who have addressed inquiries to us on the subject, are informed that we have taken measures to supply all who wish, with the improved breeds of fowls.

Horticultural Society. — At the annual meeting of the *Horticultural Society of the Valley of the Genesee*, held in the city of Rochester, Feb. 4, 1850, the following gentlemen were elected officers of the Society for the ensuing year:

President — Levi A. Ward, of Rochester.
Vice Pres'ts — 1. Samuel Miller, 2. Mathew G. Warner, of Rochester; 3. Henry P. Norton, Brockport; 4. J. J. Thomas, Macedon; 5. Asa Rowe, Sweden.
Corresponding Secretary — Dellon M. Dewey.
Recording Secretary — Joseph A. Eastman.
Treasurer — James H. Watts.

Committees: *On Fruits* — Patrick Barry, Mathew G. Warner, J. W. Bissell, Samuel Moulson, Samuel Miller, James Buchan, John J. Thomas, James C. Campbell, Elias Pond, Isaac Hills, W. R. Smith, and Lyman B. Langworthy.

On Trees, Shrubs and Flowers — Geo. Ellwanger, Charles J. Ryan, Francis Brown, jr., D. W. Powers, William King, and Henry Billings.

On Vegetables — James P. Fogg, Jason W. Seward, John Rapalje, James Vick, Jr., and Samuel B. Dewey.

On Botany — Leander Wetherell, Chester P. Dewey, Geo. H. Smith, J. W. Seward, and J. M. Whitney.

On Entomology — Chester Dewey.

Executive Committee — Levi A. Ward, Samuel Miller, Patrick Barry, Geo. Ellwanger, James P. Fogg, L. Wetherell, and Chester Dewey.

We are happy to be able to add, that the Society is in a hopeful situation, and that measures have been adopted to extend its influence and usefulness during the ensuing year.

J. W. Seward, Esq., an active member and supporter of the Society, and a very skillful and successful amateur Horticulturist, has been appointed a committee to solicit a more general co-operation of our citizens with the Society, in order that it may the more effectually carry out its future plans of usefulness. It is contemplated to have weekly or monthly exhibitions, during the ensuing season.

Destruction of Canada Thistles.

We have now before us about twenty communications from Farmers, giving their experience in subduing the Canada Thistle. All can see the impossibility of publishing them entire in our limited space; and also, the impropriety of doing so, even if we had room, as the practice of many perfectly agree — consequently the publication of these communications would be "a twice told tale."

Charles Hanford, of Alabama, N. Y., has cleared his farm of 100 acres entirely of thistles. He gives his plan:

"I plowed the patches of thistles in July one week, dragged the ground in another week, plowed it again, and so on, three times. The next year, made a summer-fallow and plowed through those patches, and after sowing the wheat a few thistles came up. I had a chissel with a handle two feet long, and dug up every root that was seen. In the spring, the wheat being five or six inches high, chisseled out all that was seen. After harvest, I also chisseled out some near stumps and stones, that the plow missed; and next year the land was clover pastured, so that when I salted my cows, if any I could not get at with my chissel, I put on salt. Next year I drew off the stone, dug up the stumps, and sowed it to wheat. A very few thistles I chisseled out, and for seven or eight years have not seen one; and have done so with every field on my farm. I am now clear of all bad weeds."

S. H. Swetland, of Clifton Park, Saratoga Co., N. Y.:

"In the summer of 1848, I summer-fallowed one half of a lot that had become badly infested with this troublesome and obnoxious weed. The other half of the lot was sown to oats. The summer-fallow was plowed in the early part of June, and then again about the middle of July. In the fore part of September the whole lot was plowed and sown with rye. When the rye was harvested, the ont ground was unusually full of thistles, and on the fallow scarcely a thistle was to be found. The ground was ordinarily dry when plowed, and the thistles of a rank growth. This may operate so again on other pieces, and it may not. Summer-fallowing is the only way of success from plowing."

Alvin Wilcox, of West Bloomfield, N. Y.:

"My first effort was with a good sized patch. I dug small holes where every spear stood, and filled them with fish brine. The next spring they came up as vigorously as ever. I then took boards and spread all over them, and battened the cracks with another tier, putting on stone and rails to keep them down. The thistles kept growing, under the boards, and working through every crevice they could find; but I kept them under. In July they all turned black, and there has been no Canada thistle there since. Having succeeded with them, I have adopted the following plan since. In the spring, when they are a few inches high, I take a stone and pound every thistle down, and lay a stone on it. Every week or two, I examine them and keep every spear covered up. If the work is done thoroughly, I have never had it fail to destroy them by the middle of August."

Moses C. Crapsey, of Lockport, N. Y.:

"The way to kill Canada thistles is by plowing and digging. There is no mistake about this. I have tried it more than once. It only needs to be well done."

M. R. Vincent, Half Moon, Saratoga Co., N. Y.:

"Take a field of green sward, full of Canada thistles, and plow it thoroughly once a month, from May or June until August, choosing the wettest time for the operation. I have tried this with good success, and my neighbors also. If the plowing is done well it is sure death to every one of them."

Wm. Parsons, Jr., Millville, Orleans co., N. Y.:

"I had nearly an acre of thistles, which had been spreading for a number of years. About four years ago I resolved to try an experiment, to subdue them. I planted the field to corn. When the corn was up big enough to hoe, the thistles also were up as high as the corn. I hoed them well, and from that time, once a week, went through them with the hoe, taking pains to destroy every thistle above ground. When the corn was fit to cut up, we had a heavy crop of corn, and not a thistle to be seen. I have since tried the same process, with equal success."

We shall give further extracts from letters on this subject in our next.

Improved Stock. — A communication from A. Stevens, of New York, in reply to S. P. Chapman, is deferred till next month.

To Competitors for our Premiums. — The competitors for our Premiums stood as follows, on our books, on the 15th of February — arranged according to the numbers sent, commencing with the highest :—

Joseph Watson, Clyde, N. Y.; E. C. Bliss, Westfield, N. Y.; J. H. Stanley, Le Roy, N. Y.; E. Howland, Mechanicsville, N. Y.; John Davis, Clarkston, Mich.; Moses Eames, Rutland, N. Y.; Wm. Knox, Waterloo, N. Y.; John B. Dolsen, Chatham. C. W.; Orrin Bishop, Dundee, N. Y.; Allen Hale, East Smithfield, Pa.; A. Conkey, Mt. Morris, N. Y.; Silsby & Keeler, Seneca Falls; R. A. Woodcock, Oxford, C. W.; A. Franklin, Honeoye. N. Y.; James Fraser, York, N. Y.; B. Coddington, Jr., Benton, N. Y.; Dr. Dow, Marion, N. Y.; O. C. Comstock, Marshall, Mich.; J. Wykoff, Romulus, N. Y.; Apollos Kent, Amboy, Ohio; Lyman Strobridge, Trumansburgh, N. Y., L. L. Pratt, Fredonia, N. Y., C. Hubbard, Adams Center, N. Y.; Isaac Minard, Hume, N. Y.; John G. True, Castile, N. Y.; Jas. C. Robinson, Penn Yan, N. Y.; Jas. Macomber, Farmington, N. Y.; J. H. Bailey, Perry, N. Y.; T. S. Cowles, Springfield X Roads, Pa.; Peter Himrod, Lodi, N. Y.; R. Craig, Portersville, Pa.; W. H. Pattison, Saline, Mich.

Rare Evergreen Trees.

WE have on hand a fine stock of
Deodar, or *Indian Cedar;*
Auracaria, or *Chili Pine;*
Cedar of Lebanon;
Abies Morinda, or *Himalayan Spruce;*
Pinus excelsa, or *Lofty Pine;*
Pinus Cembra, or *Cembran Pine;*
Cryptomeria Japonica;
Taxodium Sempervireus;
and many other species. all in pots, imported last season, and well established. Priced lists furnished on application.

ELLWANGER & BARRY,
Mount Hope Garden & Nurseries, Rochester, N. Y.
March, 1850.

The American Fowl Breeder.

A NEW AND VALUABLE BOOK; Containing full information on Breeding, Rearing, Diseases, and Management of
DOMESTIC POULTRY;
By an Association of Practical Breeders.

The above valuable book is just published by JOHN P. JEWETT & CO., Cornhill, Boston; and it is offered at the extremely low price of
25 CENTS PER COPY,
to bring it within the means of every man interested in Poultry.

☞ WE WANT 100 GOOD FAITHFUL AGENTS, to sell this Work in every County in New England, New York, Pennsylvania, and the West; in connection with
COLE'S AMERICAN FRUIT BOOK,
AND
COLE'S AMERICAN VETERINARIAN.

Active and intelligent men can make money at the business.—Address, *post paid*, the Publishers, JOHN P. JEWETT & CO.,
Cornhill, Boston.

P. S.—*The American Fowl Breeder* is done up in thin covers, and can be sent to any part of the country by mail. Any person sending a quarter of a dollar by mail, *post paid*, shall receive a copy of the work. [3-2t]

Farm Wanted.

A FARM of about fifty acres of land, with a dwelling house within five to eight miles of Rochester. The land must be of good quality—mostly cleared—accessible by good roads—in an elevated and healthy situation, and possess living springs of water. Price not to exceed forty dollars per acre. The whole purchase will be paid in cash, if required.

Apply, (if by letter, *post paid,*) to Messrs. Ellwanger & Barry, of the Mount Hope Nurseries, or to James Vick, jr.. Esq., at the Genesee Farmer office, Rochester.

Doct. A. A. Morgan, Dentist,

WOULD respectfully announce to his friends and former patrons, and to the citizens of the surrounding country, that he can be found at the old stand of Beers & Morgan. corner North St. Paul and Main streets, ever ready to attend to their calls in that style so universally admired. He would also solicit the continuance of that patronage so liberally bestowed in years past. He will, on the shortest notice, furnish plates from one to an entire sett, on fine gold, and fill decayed natural teeth so as to preserve them during life. To the Profession, he would beg leave to state that he has constantly on hand an article of gold and tin foil, beaten expressly for him by a Philadelphia House, which cannot be surpassed. It is put up in $4 books, so that it can be safely mailed to any part of the State or Union; also, a good assortment of teeth, which he is selling at New York prices. ANSEL A. MORGAN.
Rochester, February, 1850. [3-tf.]

DOWNING'S LANDSCAPE GARDENING.
Fourth Edition, Revised and Enlarged.
A TREATISE ON THE THEORY AND PRACTICE OF LANDSCAPE GARDENING,
ADAPTED TO NORTH AMERICA,
With a view to the improvement of Country Residences. Containing Directions for laying out Grounds, &c. Fourth edition, enlarged, revised, and newly illustrated.
BY A. J. DOWNING.
One volume 8vo., cloth, pp. 350.

"Downing's Landscape Gardening is a masterly work of its kind."—*Loudon.*

"This work has convinced us that sound criticism and refined taste and art are not confined to this side of the Atlantic."—*London Art Journal.*

"The standard work on this subject"—*Silliman's Journal.*

"There is no work extant that can be compared, in utility, to Downing's on this subject. It is not overlaid with elaborate dissertations and learned disquisitions, like the English works, but is truly practical."—*Louisville Journal.*

"Mr. Downing's works have been greatly influential in recommending among us that life which always seemed to us the perfection of human existence—the life of men of education living upon and cultivating their own farms."—*N. Y. Courier & Enquirer.*

HINTS ON PUBLIC ARCHITECTURE.
PREPARED ON BEHALF OF THE BUILDING COMMITTEE OF THE SMITHSONIAN INSTITUTION.
BY ROBERT DALE OWEN.
A large quarto, elegantly printed, with 113 illustrations, in the best style of the art. pp. 600.

"The most comprehensive and elegantly illustrated treatise on architecture that has yet appeared in this country."—*Boston Transcript.*

"A truly admirable work—creditable alike to the Institution, the editor, and to the publisher."—*Pennsylvania Inquirer.*

"The subject of which it treats is one of vast importance to our people, in its economical not less than its ornamental relations; and it is presented here in such a way as can not fail both to gratify and instruct."—*Philadelphia North American.*

G. P. PUTNAM,
Publisher, &c., 155 Broadway, New York.

☞ A large assortment of works on Botany, Gardening, Agriculture, Farming, &c., always for sale, which will be found enumerated in the General Catalogue published by G. P. Putnam, which can be had *gratis* on application.
March, 1850. [3-1t]

To Fruit Growers and Nurserymen.
SPRING OF 1850.

THE SUBSCRIBERS invite the attention of tree purchasers to their stock now offered for sale. By large importr ions from Europe, and an extensive scale of propagation in their own grounds, they are enabled to offer one of the most extensive and complete assortments, and on the most liberal conditions.

The well known health, hardiness, and vigor of the trees grown here, and the undivided and scrupulous attention given to every department by the proprietors in person, offer great inducements to purchasers.

Standard Fruit Trees.
Pyramidal and Dwarf Fruit Trees.
Gooseberries, Currants, Strawberries, &c.
Ornamental Trees and Shrubs.
Roses, Dahlias, &c.
Hedge Plants, (including large quantities of Buckthorn and Osage Orange.)
Stocks for Standard and Dwarf Trees.

And all other Nursery Articles, besides a large collection of Greenhouse, Border and Bedding Plants. Wholesale priced lists sent gratis to all post-paid applications. A separate Catalogue for 1850, of Roses, Dahlias, and other new and rare articles will be also furnished.

ELLWANGER & BARRY.
Mount Hope Garden & Nurseries, Rochester, N. Y.
February 1st, 1850.

Ellwanger & Barry

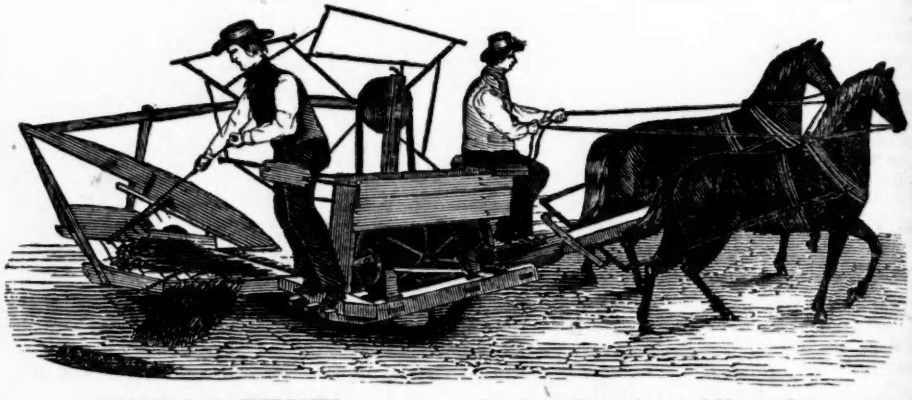
WISH to say that the only traveling agents authorized to do business in their name, are ROBERT BLAIR, HIRAM BECKER, and HENRY COLLINS.

They feel compelled to make this announcement in consequence of other persons representing themselves as their agents.

Mount Hope Garden and Nurseries,
Rochester, N. Y., March, 1850.

For Sale.

TWO Short Horned Bull Calves, one year old in April next. In color one is red, the other red with some white, both descended from the Bull "Yorkshireman," bred by the late Thos. Bates, Esq. *Letters of inquiry, post-paid,* will be attended to.
Auburn, Jan. 11, 1850. [2-2t] J. M. SHERWOOD.



SEYMOUR & MORGAN'S

IMPROVED REAPING MACHINE,

MANUFACTURED AT BROCKPORT, MONROE CO., N. Y.

THE subscribers are preparing to offer to the Farmers a superior REAPING MACHINE. Having for years been engaged in manufacturing a large number of *McCormick's Reapers*, they are confident that the Reaper which they are now manufacturing is far superior in every respect to any other now in use. It was thoroughly tested in the harvest fields last year and gave entire satisfaction to all who witnessed its operation. It surpasses any machine now before the public in many important points;—the *Cutter* or Sickle being in sections, in case of accident can be repaired by a good Blacksmith, without the owner being obliged to go to the manufacturers for a new blade. The ground wheel is 3 ft. in diameter, and all the geering runs in iron boxes. An early order is important from those wishing to purchase a machine, as we have already contracted for the sale of 300 for the West. In all cases a liberal warrant is given to the purchaser.

The improved Reaper was constructed under the supervision of our Foreman Mr. GEO. F BURNET, who has been engaged three years for us in the business. SEYMOUR & MORGAN.

Brockport, December 25, 1849.

CERTIFICATES.

SWEDEN, Nov. 12, 1849.

Messrs Seymour, Morgan & Co.—In my harvest, last season, I used one of your Improved Grain Reapers. I had formerly used one of McCormick's Improved Virginia Reapers, I have had considerable knowledge of them. In comparison, I think yours decidedly preferable; firstly—in point of perfection in cutting, which is the great desideratum, it is far in advance of his, and next, in ease of operation, I think it has decided advantage. I did not obtain your Reaper until a large part of my harvest was completed; consequently I had not an opportunity to test the amount that could be cut in a day, still I am satisfied that it is capable of cutting from fifteen to twenty-five acres per day, and that, too, in the most perfect manner. I used no change of team. I did not find it necessary in doing an ordinary day's work—about fifteen acres per day. I tested your machine in wet grain and when there was grass at the bottom; here I found it had a great advantage over other Reapers in use, it being able to go through almost any grain, some badly lodged, without any apparent difficulty of clogging the knife. And from my experience I think it a valuable labor-saving-machine, and would cheerfully recommend it to the attention of farmers, as I think grain can be cut with it, all expenses counted, at half the cost of cutting it the ordinary way — Wheat can be bound and shocked in a better manner, and with less labor, besides a great saving in the waste of grain.

Yours &c. F. P. ROOT.

I saw the aforesaid, Seymour & Morgan's Improved Reaper, in F. P. Root's harvest field and do concur in the foregoing statement.

WM. ROOT, Esq.
D. H. ROOT.

I have seen the Machine work in very heavy, and also in wet wheat where it performed well, and believe it to be an improvement upon McCormick's Reaper. There was no clogging, as in the case of McCormick's and it must be a good machine if well made. NATHAN LOCKE.

BROCKPORT, Nov. 13, 1849.

Messrs. Seymour & Morgan:—Gents—I used one of our Improved Reapers in my harvest, which worked better than any I have seen before used—cutting wheat when there is much grass, without choking, which other machines that I have used would not do.—I have had much experience with Reapers—having purchased the first one of McCormick's brought to this State. I have since put a large number of McCormick's in operation at the West, and believe yours to be the most perfect Reaper now in use.

A. CHAPPELL

I used one of Messrs. Seymour & Morgan's Reapers last harvest, and cheerfully recommend it to Farmers as the best machine within my knowledge for cutting grain. GEO. H. ALLEN.

BROCKPORT, Nov. 13, 1849.

This may certify that I used in my harvest of 1849, Seymour & Morgan's Improved Reaper, which worked to my entire satisfaction; cutting grain in all conditions. I believe it cannot be clogged in either grassy or green wheat. I have witnessed the operation of other Reapers now in common use and I believe it to be superior to any that I have seen—cutting wet or grassy wheat where other Reapers cannot. F. W. BREWSTER.

BROCKPORT, Nov. 12, 1849.

We have seen the trial of Seymour & Morgan's Improved Reaper in the harvest of F. W. Brewster—and having witnessed the operaton of other Reapers, we believe this the most perfect machine now in use.

J. A. HOLMES, ALLEC POTTER,
D. A. WHITE, W. THEO. DOWNS.
MORGAN RANDLE, O. A. ROYCE.

Seneca Lake Highland Nurseries,

CATHARINE, CHEMUNG COUNTY, N. Y.

WITH Nursery and Standard Trees, this establishment covers forty acres. Fruit trees of the best varieties, at reduced prices, wholesale or retail, of all the kinds suitable to this climate. Ornamental Trees and Shrubs of all the most rare kinds, both Deciduous and Evergreen; Green House Plants; in short, a Nursery in all its parts. Trees can be furnished of the new and popular "Wagener" apple, also the Dause or Hawley.

Trees carefully packed and forwarded by public conveyance to any part of the Union. Being located within two miles of the Chemung Rail Road, used by the New York and Erie Company, their agents certificate will be forwarded by mail on their delivery. Packages will reach the New York and Erie Road at Elmira, 16 miles south of this, and the Buffalo and Albany route at Geneva, 45 north, which makes it a very desirable location for sending trees by public conveyance. Neither the Pear or Plum Blight, or Peach Yellows, are known at this location.

The Horticultural Advertiser, containing a priced Catalogue, furnished gratis to all post-paid applicants.

January, 1850. [2-2t] E. C. FROST.

Choice Seedling Potatoes.

"*Buffalo Seedling Pinkeye.*" Rather long, marble white, eyes bright pink, productive, hardy, and excellent for the table.

"*Erie Seedling*" Long, intershaded with pink, purple, and green. Productive, hardy, and fine for the table.

"*Seedling Russets.*" Round, smooth, color cinnamon, hardy, early, productive, agreeably flavored, and fine for the table.

My "*Early Junes*" are large, round smooth, light orange white; on the whole, the best early potato for early marketing I have yet known.

Also, superior, renovated seedling potato seed, gathered from the most select varieties, combined with choice specimens late from Europe and South America.

Carefully packed and delivered at the depot, $2 per bush, $4 per bbl. Seed per packet sufficient to produce ten bushels, transmissive by mail at double postage, $1 per packet.

Buffalo, N. Y., Feb., 1850. [3-1t] N. S SMITH.

A Rare Chance.

THE subscriber offers at private sale, or in exchange for serviceable horses or mares, to dispose of his splendid bay colt of the Surprise stock. His connection and interest in the Norman horse make it desirable to be free from this charge. This stallion is nearly five years old, has very superior colts, and from his size, appearance, and muscular development, promises much. Communications may be directed to Robt. B. Howland, Union Springs, Cayuga Co., N. Y. [3-2t]

REVOLUTION IN PERIODICAL LITERATURE!

HOLDEN'S ILLUSTRATED DOLLAR MAGAZINE.

SINCE the death of the projector of this popular Magazine, the property has passed into the hands of the subscriber, who will continue to publish it at the Publication Office, No. 100 NASSAU ST., New-York.

The New Volume,

To be commenced on the First of January 1850, will comprise many important improvements, which, is beleived, will render the Magazine one of the best Periodicals published in the country, as it certainly is the cheapest. Among these improvements will be new and beautiful type, fine calendered paper, a higher order of illustrations than those heretofore given, and contributions from some of the ablest writers in America. It is the aim of the Proprietor to publish a Popular Magazine, adapted to the wants of all classes of reading-people in the Republic, which shall be both instructive and amusing; and free alike from the grossness which characterizes much of the cheap literature of the day, and from the vapidity of the so-called "Ladies Magazines." The illustrations will consist of Original Drawings engraved on wood by the best artists;

PORTRAITS OF REMARKABLE PERSONS AND VIEWS OF REMARKABLE PLACES,

illustrated by pen and pencil. A strict revision will be exercised that no improper article, or word, shall ever be admitted, so that it may be safely taken by persons of the utmost refinement, and read at the fireside for the amusement or instruction of the family circle.

The Review department of the magazine will contain brief critical notices of all the new publications of the day, and will form a complete chronicle of current literature.

From the business and literary connxions already established, the best assistance that the country can afford will be secured for completing the plans of the Publisher, and nothing will be wanting that ample pecuniary resources and watchful industry can obtain to make the Magazine the leading

LITERARY PERIODICAL OF AMERICA.

The extremely low rate at which it is published precludes the hope of profit, except from a circulation greater than that which any literay periodical has ever yet attained; but, with the new avenues daily opening for the circulation of works of merit; the constantly increasing poupiation of the country; the cheapness of the Magazine, and the superiority of its literary and artistic attractions to those of any other work now issued; the proprietor fearlessly engages in an enterprise which will be sure to benefit the public if it should not enrich himself.

The Magazine will be under the Editorial charge and supervision of CHARLES F. BRIGGS, who has been connected with it from the beginning.

The "PULPIT PORTRAITS," a series of Biographical Sketches, accompanied by well engraved Portaits of Eminent Divines of the American Churches, which have formed a conspicuous feature of "HOLDEN," will be continued in the succeeding Volumes of the Magazine, and will render it of peculiar value to religious people of every denomination.

THE FIFTH VOLUME

will commence on the First of January next, but will be issued on the 15th of December. Each number will consist of 64 PAGES, AND NUMEROUS ENGRAVINGS. The Terms are

ONE DOLLAR A YEAR

in Advance; the Magazine will be plainly and carefully directed and sent by mail AT THE RISK OF THE SUBSCRIBER. As each number will be sterotyped, missing or lost numbers can at any time be supplied when ordered, but will be deducted from the time for which payment has been received. Remittances may be sent at the risk of the Proprietor, provided a description of the bills are taken and enclosed in presence of the Postmaster as evidence of the fact.

Five copies will be furnished for $4, and 20 copies for $15. Nos. for the year 1848, excepting the month of January, will be furnished at 4 cents each, and Bound Volumes in cloth with gilt edge, from July to December inclusive, at $1 each.

Newspaper publishers who will insert this Prospectus four times, and notice the Magazine monthly, will receive a Bound Volume for the year 1849, and an exchange for the coming year; they are requested to send only those papers in which the Prospectus and notice appear. Letters must be addressed to "Holden's Dollar Magazine, No. 109 Nassau st., New York," and POST PAID in all cases.

Jan. 1850, WM. H DIETZ. Proprietor.

Engraving.

E. BALDWIN, would respectfully inform his friends and the public generally that he has located himself in Rochester, and is prepared to execute all descriptions of Engraving, Seals, Labills, Machinery, Visiting and Wedding Cards, Letters, Book and Cloth stamps, Views of Buildings or Animals, in short every thing in his line will be done neatly and reasonably. He will also keep on hand an assortment of

JUVENILE BOOKS,

such as Young Toy Books, Dream Books, Primmers, &c., illustrated with fine wood cuts, plain and colored. Letter and fancy envelops, motto wafers, Prints, Lead pencils, &c..&c., which he will sell for cash at New-York prices. *All* those wishing anything in his line will please call at No 15 third floor Reynolds Arcade, Rochester N. Y.

JUST PUBLISHED,

BY DERBY, MILLER AND CO., AUBURN,

THE AMERICAN FRUIT CULTURIST,

BY J. J. THOMAS.

CONTAINING directions for the propagation and culture of Fruit Trees, in the Nursery, Orchard, and Garden, with descriptions of the principal American and Foreign varieties, cultivated in the United States. By J. J. THOMAS. One volume 12 mo. of over 400 pages. With 300 accurate Illustrations.—Price $ 1,00

NOTICES OF THE PRESS.

"Among all the writers on fruits, we do not know of one who is Mr. Thomas's superior, if his equal, in condensing important matter. He gets right at the pith of the thing—he gives you that which you wish to know at once; stripped of all useless talk and twattle. No man has a keener eye for the best ways of doing things. Hence we always look into his writings with the assurance that we shall find something new, or some improvement on the old; and we are seldom disappointed.

This book is no exception It is *full*. There is no vacant space in it. It is like a fresh egg—all good, and packed to the shell-full."—*Prarie Farmer.*

"We predict for it a very rapid sale. It should be in the hands of every fruit grower, and especially every nurseryman. It is a very cheap book for its price."—*Ohio Cultivator.*

"An equally valuable, but cheaper book than Downing's, was wanted by the great mass. Just such a work has Mr. Thomas given us. We consider it an invaluable addition to our agricultural libraries."—*Wool Grower.*

"It is a most valuable work to all engaged in the culture of Fruit Trees."—*Utica Herald*

"In the volume before us, we have the results of the author's experience and observation continued with untiring perseverance for many years, in language at once concise and perspicuous."—*Albaany Cultivtor*

"The vast number of varieties which have been propagated, renders such a book peculiarly necessary at the present time, serving to point out the good from the bad, and being just what the great mass of the community now want in reducing the list of sorts by retaining the best."—*Ib.*

"We can safely say, with confidence, to our readers, if you need a book to instruct you in the modes of growing trees, &c., from the first start, the system of pruning, &c., &c., you will find the American Fruit Culturist an extremely valuable work. * * The million who purchase it, will find matter adapted to their wants, superior to any work as yet published."—*Cleveland Herald.*

February 1, 1850. [2-3t.]

ELIHU BURRITT'S NEWSPAPER.

THE CHRISTIAN CITIZEN.

ELIHU BURRITT, Proprietor.

EDITORS—ELIHU BURRITT and THOMAS DREW, JR.

REGULAR FOREIGN CORRESPONDENTS—EDMUND FRY, London; J. B. SYME, Edinburgh; ERNEST LACAN, Paris.

THE SEVENTH VOLUME of this large and popular Family Newspaper commenced on the first of January, 1850.—TERMS, ONE DOLLAR AND FIFTY CENTS per annum, invariably in advance. Four copies for Five Dollars.

The Citizen is the organ of no party or sect, but expresses freely the sentiments of its editors upon all the great reformatory questions of the day. Sympathizing with all the great enterprizes of Christian benevolence, it speaks against all war in the spirit of peace. It speaks for the slave, as a brother bound; and for the abolition of all institutions and customs which do not respect the image of God and a human brother, in every man, of whatever clime, color or condition of humanity. All orders should be *post pvid*, and directed to either of the editors, at Worcester, Mass. [2-3t]

To Seedsmen and Dealers.

The subscribers are prepared to import on very favorable terms, from the most distinguished and reliable Seed Establishments in London or on the continent of Europe, seeds in quantities, and of a quality in which *the utmost dependence may be placed*. The seeds will be forwarded in the original packages and original invoices furnished. Persons wishing to import may thus avail themselves of the experience of the subscribers, by the payment of a small commission. JAS. M. THORBURN. & Co.

15 John Street, New York.

☞Red Top—Orchard—Ray and other grasses—White Dutch Clover—Lucerne etc. etc., low by the quantity.

Nov. 1 1849.

Take Notice.

THREE Months Extra Pay and One Hundred and Sixty Acres of Land will be procured for all who enlisted for five years, or during the War of 1812, and for, all including Volunteers who served in Mexico, and for the heirs of all who have died in the service.

Information will be given to relatives, Free of Charge, by writing to G. F. LEWIS,

Detroit, Michigan.

Postage Paid.

Those who do not know what became of their friends, write when and where they joined the army. [2-3t]

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FRESH GARDEN SEEDS, IMPLEMENTS, &c.

RAPALJE & BRIGGS respectfully invite the attention of dealers in Garden Seeds to the stock they are now receiving at their Agricultural Warehouse and Seed Store, consisting in part of the following sorts:—

Beets, sorts; Broccolis; Cabliflowers; Cabbages, sorts; Carrots, sorts; Celery; Cress; Cucumbers, sorts; Lettuces, sorts; Melons, sorts; Onions, sorts; Peppers; Pumpkins; Radishes sorts; Spinages; Tomatoes; Turnips; Early and Late Peas; Dwarf and Pole Beans; Early and Sweet Boiling Corn, Flower Seeds, &c.

The above seeds being raised expressly for us during the last season, by faithful and experienced Seed Growers, we have perfect confidence in offering them to the public.

SEED GRAIN.—One of the most important cares of the farmer, is the judicious selection of his Seed Grain; and in order that that care may be lightened, and that we may be able to furnish Seed of the best quality, and well adapted to this climate, we have had selected for us, of the following sorts, such Seed as we feel confident will give perfect satisfaction to all:—Black Sea Spring Wheat, Italian do. do., Siberian do. do., Spring Rye, Barley, Bedford Oats, Buckwheat, and many choice varieties of Corn. Also, an extensive assortment of Garden and Grass Seeds.

We have also, at our Warehouse, the largest and best assortment of Agricultural Implements in the State, consisting of Thrashing Machines, Reapers, Corn Shellers, Straw and Stalk Cutters, Horse Powers, Water Rams, Plows, Hoes, Spades, Forks, Pruning Saws and Knives, Churns, Harrows, Rakes Drilling Machines, in short, every article used by the Farmer, the Gardener, or the Horticulturist, from an Apple-Pearer to a Saw-Mill.

We ask every Farmer who needs *Seed* or *Tools*, to give us a call, at our Warehouse in Rochester, nearly opposite the Eagle Hotel, on Buffalo street, where we think we can satisfy all that our stock and prices are right. RAPALJE & BRIGGS.

Notice to Farmers.

HAVING taken the stores Nos. 12 and 14 Front street, I intend to occupy No. 14 for *Agricultural Tools*, and No. 12 as the *Seed Store*. On the first of April I shall open an entire new stock, both of eastern and of Rochester manufacture. *My* stock of *Seeds* is now complete, having received from London, during the month of February, about *three thousand* pounds of Turnep, Ruta Baga, and Cabbage Seeds, &c., &c. I have also on hand my usual supply of American seeds; also, Clover, (large and small,) Timothy, Canada Field Peas, Early June Peas, Marrowfat, Blue Imperial, Early Kent, and Early Prince Albert, (the first in this market for two years past,) with every kind of seeds wanted in this market. Also, five bushels *White Dutch Clover*. Further particulars hereafter.

JAMES P. FOGG,
Nos. 12 and 14 Front street, Rochester, N. Y.

March 1, 1850. [3-1t]

Fruit Scions.

I AM now ready to supply Scions for grafting for 1850, which can be sent by *mail* or Express; and in all cases they have been cut from orchards familiar to me, and by persons in whom I can confide.

APPLES.

Northern Spy, Norton's Melon.
Early Joe, Canada Red.
Fameuse, Ribstone Pippin.
Yellow Bellflower, Esopus Spitzenburgh,
Pomme Gris.

When possible, shall send specimens of the fruit.
Price One Dollar per hundred.

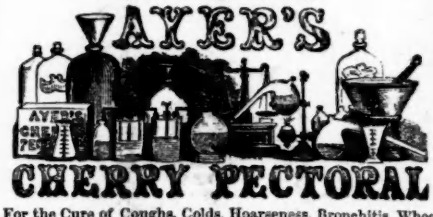
PEAR SCIONS.—"Onondaga" or Swan's Orange. "Osband's Summer Virgalieu." "Virgalieu," and all choice varieties furnished at from three to four shillidgs per dozen.

Post-paid applicants shall have prompt attention.

☞ A few choice apples for sale.

Address JAMES H. WATTS,
January 1, 1850. Rochester, Monroe Co., N. Y.

Great Cough Remedy.



For the Cure of Coughs, Colds, Hoarseness, Bronchitis, Whooping-Cough, Croup, Asthma and Consumption. The uniform success which has attended the use of this preparation—its Salutary effect—its power to relieve and cure affections of the Lungs, have gained for it a celebrity equaled by no other medicine. We offer it to the afflicted with entire confidence in its virtues, and the full belief that it will subdue and remove the severest attacks of disease upon the throat and Lungs. In this limited space can be given but a small proportion of the cures it is producing in all sections of the country.

From an overseer of the Hamilton Mills.

LOWELL, August 10, 1849.

DR J. C. AYER: I have been cured of the worst cough I ever had in my life by your "Cherry Pectoral," and never fail, when I have an opportunity, of recommending it to others.

Yours, respectfully, S. D. EMERSON

From Dr. Jones, an eminent practitioner of Medicine in Alabama, well known throughout the State.

MONTGOMERY, (Ala.) October 4, 1849.

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